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Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

04-AMCP-0086

DEC 04 2003

Dr. A. W. Conklin, Supervisor
Air Emissions and Defense Waste Section
Washington State Department of Health
Post Office Box 47827
Olympia, Washington 98504

RECEIVED
DEC 09 2003
EDMC

Dear Dr. Conklin:

TRANSMITTAL OF DOCUMENTS REQUESTED BY THE WASHINGTON STATE
DEPARTMENT OF HEALTH (WDOH)

This letter transmits the documents WDOH requested in a meeting on November 18, 2003, with the U.S. Department of Energy. The documents were requested by WDOH in association with the records retrieval review on the 296-B-10 stack which also occurred on November 18, 2003. The enclosed documents are listed below:

- Enclosure 1 – Operating log sheets for November 3 through November 6, 2003
- Enclosure 2 – Environmental Procedure HNF-PRO-15333
- Enclosure 3 – Decision tree
- Enclosure 4 – Work Package EL-03-00560

If you have any questions, please contact me, or your staff may contact Doug Hildebrand, Office of the Assistant Manager for the Central Plateau, on (509) 373-9626.

Sincerely,

Joel Hebdon, Director
Regulatory Compliance and Analysis Division

AMCP:RDH

Enclosures

cc w/encls:

T. Frazier, WDOH
Administrative Record

11-5-03

0000 Continued Surveillance all major equipment is operational with the following exceptions
 WPMCS paper o/s
 Stack monitoring system o/s
 K1 and K3 Supply flows reduced to support work
 K3-7-1 is on ESB - - -

282BA DEEP WELL is o/s

0000 1st Surveillance no identified problems

0515 2nd Surveillance no identified problems

0645 Filled Pool Cell

0710 Relieved by J. Uabamsee

106

W. Black

0710 Relieved B. Cook plant status as previously noted

0730 Assumed CCA and Log keeping duties. (P. J. Tomlin) ~~2/3/03~~

0750 Released Instrument techs to perform WFT/T 30D Func. testing per EL-03-02116/LT.

0800 Released mech/electricians/sof to perform 30d diesel Eng & Ben test per EL-03-02038/P.

0818 Radcon announced higher probability of RADON in the RBA's. Requested personnel to restrict access to AS-need basis in all RBA's -

0827 Fire Department shutdown the ^{RAW 260 11/5/03} ~~sanitary~~ water riser and drained to allow pipefitter work to replace bad piping per 2C-01-00149. 1 hour fire watch started. Stopped ^{all} truckport work.

0840 Fire Department restoring the WFT/T water riser. shutdown not needed for sanitary under outage. No fire watch needed. sprinklers back in service.

0842 1st set of surveillance readings completed, no unusual conditions found.

0915 TX system switched in auto from PC5 to PC6

1130 Instrument techs completed test of WFT/T's for pool cell, 30d PM

106 RSP

11-3-03

0000 Continued surveillance all major equipment is operational with the following exceptions

WPMCS pager o/s

K3-7-1 is on ESB

282 BA DEEP WELL pump o/s

0110 1st surveillance no identified problems

0515 2nd surveillance no identified problems

0730 Relieved by G Gorman

KAB

W. Book

0730 RELIEVED Bill COOK, PLANT STATUS AS NOTED

0730 Assumed O.B.E.D., CCA + logkeeping duties.

KA Burton KA Burton

0735 Released pkg. EL-03-02112 for Inst. Tech. to perform calibration of TK210 weight factor + alarm instruments.

0810 IX system switched from pool cell #3 to pool cell #4 in auto sequence.

0810 RELIEVED BY TIM WABAKOFF

W. Gorman

0810 Relieved W. Gorman, plant status as previously noted.

0830 NCO switched from filling pool cell 10 to filling pool cell 9 (waste water collection steam condensate). Started pumping pool cell 10 to the T.E.D.F. line.

0845 SOE reduced K1 + K3 supply systems in support of stack sampler probe/line replacement per EL-03-00560.

0930 NCO completed 1st surveillance tour. No identified problems.

0935 Personnel completed pre-job meeting for replacement of stack sampler probe/line per EL-03-00560. Elec. is removing the old heat trace (heat trace isolated, no BW required).

1110 BCT pulled sample paper from the stack CRM + isolated air in preparation of sample ~~so~~ line replacement per EL-03-00560. Failure light on K3 panel is in alarm until line replacement completed & stack CRM returned to service.

11-6-03

0000

Continued Surveillance all major equipment is operational with the following exceptions

WPMCS pager o/s

Stack monitoring system o/s

K3-71 IS IN (ESB)

282-DeepWell is o/s

0115

1st Surveillance no identified problems

0520

2nd Surveillance no identified problems

0730

Assumed CCA & logkeeping duties KA Burton KA Burton

0730

Relieved by J Wabunsee

W. Stewart

0730

Relieved B. Cook Plant status as previously noted.

0800

Relieved by M Johnson

0800

Relieved J Wabunsee Plant status as previously noted

0800

Relieved J Wabunsee Plant status as previously noted

0805

(late Entry) 0740 Electrician checking load on stack monitoring system/cabinet breaker.

0806

Released work 1 of package EL-03-02147 to perform inspection/cleaning of HEM's & PCMI-Bs.

0809

NCO completed inspection of outside RMA's per tickler M-10. All satisfactory.

0825

NCO completed inspection of fire extinguishers per tickler M-04.

0830

Installed caution tags on K5-14-2 and valves 225BC-6200-9 & 225BC-6300-78 for winterization of the K5 system. TAF 2C-03-031.

0835

IX system switched from pool cell #6 to pool cell #7 in auto sequence.

0914

NCO completed cold weather inspection of MO-312 per tickler W-15.

0925

Personnel completed pre-job meeting for waste removal from the HMS.

0945

NCO completed 1st surveillance tour. No identified problems.

1000

Insulator starting insulation replacement on the

JSP

stack sample line per EL-03-00560.

11-4-03

0000 Continued surveillance all major equipment is operational with the following exceptions
 WPMCS pager o/s
 Stack monitoring system o/s
 K1a K3 supply fan reduced to support work
 K3-7-1 on ESTB
 282 BA Deep Well Pump o/s
 0100 1st surveillance no identified problems
 0515 2nd surveillance no identified problems
 0725 Continuing surveillance
 0725 Assumed OCA logkeeping duties. RA Buxton & Buxton
 0730 Released pty EL-03-01874 for Elec. to perform 34 day GECI inspection.
 0735 Released pty EL-03-02123 for Inst. Tech. to perform 30 day E/I of RITs (E12/E14/E17/K107).
 0750 Inst. Tech. reset HEH in accident 9. (w/ F. H1302, 16:35 entry)
 0805 RES performing cleanup of K5-14-2 area in 225BC following repairs. Will need to complete charging of the system with fresh when units can be started in the spring.
 0820 X system switched from pool cell #5 in auto sequence.
 0825 Pipefitter continuing pre-filling of piping for sanitary water line replacement pic 2001-00149.
 0840 Personnel completed a prejob safety meeting for stack sample line/purge replacement pic EL-03-00560. Work ongoing.
 0845 ESM preparing to deactivate fire system from MO-232. ^{MO-232 CP, circuit 8}
 All work authorized for Electricians at ~~sub~~ station MO 11/4/03
 * for Pipefitters on water supply valve. (2 separate work scopes). Released pty for 03-33904 for work.
 0850 Pipefitter replaced depleted north bank DI bottles. Depleted bottles moved to WWC room for pickup. Material Condensator contacted to arrange for pickup. Pipefitters have completed isolation of sanitary water to the MO-232 fire line. Sanitary water isolated to MO-232.

11/04/03

1105

Electrician completed 34 day GFCI inspection
per pkg. EL-03-01874. Pkg. is in post-review.

1110

Electrician working pkg. 2C-01-00217, Modify
225B Generator for load bank. No LOTO required
for work scope.

1115

(Late Entry) 1000 - NCO completed 1st surveillance
tour. No identified problems.

1325

Millwrights replaced rockstopper material on K1
exhausts in the Operating Gallery per tickler W-06.

1410

NCO completed 2nd surveillance tour. No identified
problems.

1411

Inst. Tech. completed 30 day F/T of RITs/TK100
per pkg. EL-03-02123. Pkg. is in post-review.

1445

FSM Electrician has MO-232 FACP disconnected.
REAR box on front of MO-232 will remain
operational. Work pkg. 03-33704.

1525

Pipfitters completed ^{and 11/4/03} installation of new
stack piping & vacuum test of the system. Stack
system remains O/S.

1510

Turned log keeping duties over to the surveillance
operator.

1530

Relieved by P Purdy
Cook

1530

Relieved (Bill Cook) Plant status as previously noted.

1545

Reviewed Log Book, Standing and Timely Orders.

1700

Performed 1st surveillance - No other identified problems.

2100

Performed 2nd surveillance - No other identified problems.

2315

Relieved by C-shift (Bill Cook)

2315

Relieved P Purdy plant status as previously noted.
P Purdy

11-5-03

0000 Continued Surveillance all major equipment is operational with the following exceptions
 WPMCS paper o/s
 Stack monitoring system o/s
 K1 and K3 Supply flows reduced to support work
 K3-7-1 is on ESB...

282BA DEEP WELL is o/s

0000 1st Surveillance no identified problems

0515 2nd Surveillance no identified problems

0645 Filled Pool Cell

0710 Relieved by J. Uabamsee

106

W. Black

0710 Relieved B. Cook plant status as previously noted

0730 Assumed CCA and Log keeping duties. (P.I. Tomlin) ~~2/3/03~~

0750 Released Instrument techs to perform WFT/T 30D Func. testing per EL-03-02116/LT.

0800 Released mech/electricians/soe to perform 30d diesel Eng & Ben test per EL-03-02038/P.

0818 Radcon announced higher probability of RADON in the RBA's. Requested personnel to restrict access to AS-need basis in all RBA's -

0827 Fire Department shutdown the ^{RAW 20/11/03} ~~sanitary~~ water riser and drained to allow pipefitter work to replace bad piping per 2C-01-00149. 1 hour fire watch started. Stopped ^{all} truckport work.

0840 Fire Department restoring the WFT/T water riser. shutdown not needed for sanitary under outage. No fire watch needed. sprinklers back in service.

0842 1st set of surveillance readings completed, no unusual conditions found.

0915 TX system switched in auto from PC5 to PC6

1130 Instrument techs completed test of WFT/T's for pool cell, 30d PM

106 RSP

11/5/03

1300 2nd shift surveillance complete, no identified problems noted -

1300 Instrument leads wiring on HEMS -

3rd pr EL-03-0212617.

1330 CA setup in truck part to prepare stack sample line for shipment to LMS for anal.

1430 Truck Part Re-posted as RBA.

Unit has been moved to the shop and the samples and probe are in cold storage.

LMA

1445 trained bookkeeping duties over to surveillance operator.

1450 ^{4th}

Relieved by T. Purdy.

PM

James E. W. W. W.

1450 Relieved (Jim W. W. W.) Plant status as previously noted.

1500 Reviewed loc. book, standing and timely orders.

1515 SOC performed weekly check of W 39

1900 Assumed surveillance - no other identified problems.

2100 Relieved and surveillance, no other identified problems.

2320 Relieved by C-shift (B. L. Cook)

2330 Relieved Purdy plant status as previously noted.

PM

Noted

Continued Surveillance, all major equipment is
operational with the following exceptions
WPMCS pager o/s
Stack monitoring system o/s
K371 is in (FSB)
282-Deppell is o/s

0115 1st Surveillance no identified problems
0520 2nd Surveillance no identified problems

0730 Assumed OCA & logging duties RA Burton, RA Burton

0730 Relieved by J. Wadsworth

WJ850K

0730 Relieved R. Cook, Plant status as previously noted.

Relieved by J. Johnson

8 m/c system

0800 Relieved J. Wadsworth, Plant status as previously noted.
(late entry) 0740. Electrons checking load on static

monitoring system/cabinet breaker.

0806 Released work of package EL-03-03-03-03 to platform

inspection/cleaning of HEMs & PCM-6s.

0809 NCO completed inspection of outside RMA's per

ticket M-10. All satisfactory.

0845 NCO completed inspection of fire extinguishers

per ticket M-04.

0830 Installed caution tags on K5-14-2 and valves associated with

TA 2C-03-03.

0835 IX system switched from panel cell #6 to panel cell #7

in auto sequence.

0914 NCO completed cold weather inspection of 240-312 per

ticket W-15.

0945 Personnel completed pug-bis meeting for waste removal

from the HNS.

0945 NCO completed 1st surveillance tour. No identified

problems.

1000 Isolator starting insulation replacement on the

sketch sample line per EL-65-00520.

WJ850K

11-6-03

280

11/06/03

1120

NCOs moved waste from the NMS to waste storage area at 226B.

1130

Inst. Tech. completed weekly inspection of NFM & PCM-B2 per EL-03-02147.

1250

Released pkg. EL-03-02119 for Inst. Tech. to perform 30 day calibration of Chem Cads 1, 2, 3.

1253

Authorized Alw Loto use on 10-ton Pool Cell crane disconnect to perform capsule verification per EO-905-030.

1330

NCO completed 2nd surveillance tour. No identified problems.~~1340~~~~Inst. Tech. completed calibration of Chem. Cads 1, 2, 3 per EL-03-02119. Pkg. in post-review.~~ ~~11/06/03~~

1340

Inst. Tech. completed calibration of Chem. Cads 1, 2, 3 per EL-03-02119. Pkg. in post-review.

1400

NCOs completed capsule identification of capsules in Pool Cell 6, Rack 3 per EO-905-030. Identified that capsules C1608 & C1664 need rescribed.

1455

Laggar reinsulated 30" pilot line at the north PRV station.

1505

RadCon completed replacement of the stack sample filter paper per EL-03-02560, step 4.5. Stack sample system is operational & returned to service. Stack recorder reading ~125 cpm.

1510

Turned logkeeping duties over to the surveillance operator.

1530

Day shift operator holding over as surveillance operator on swing shift.

1730

Performed 1st surveillance tour. No identified problems.

2100

Performed 2nd surveillance tour. No identified problems.

2330

Relieved by W.B. Cook.

2330

Relieved G. Johnson plant status as previously noted.

JH KLB

Enclosure 2
Environmental Procedure HNF-PRO-15333

**Project Hanford Management System
Procedure**

Environmental Protection Processes

HNF-PRO-15333

Revision 0

Published: August 8, 2003

Topic: Environmental Protection

Environmental Protection Processes

1.0 PURPOSE

This procedure defines processes for implementing environmental requirements in a manner that:

- Protects human health and the environment;
- Meets applicable federal, state, and local environmental regulations, environmental permits, and compliance agreements/orders; and
- Fulfills environmental provisions of the Project Hanford Management Contract (PHMC) (U.S. Department of Energy, Richland Operations Office [DOE-RL], Contract DE-AC06-96RL13200), including applicable DOE Orders and documents.

The format of this document departs from previous Environmental Protection procedures, and is organized by "work activity," rather than by "regulatory discipline." As used in this procedure, a "work activity" is defined as:

A discrete work process to accomplish specific end points (e.g., construction, operations, maintenance, demolition, waste management, etc.) that integrates and implements applicable environmental requirements from the various regulatory disciplines (e.g., *Resource Conservation and Recovery Act*, *Toxic Substances Control Act*, *National Environmental Policy Act* [NEPA])."

The activity-based format better aligns with the overall intent of HNF-MP-003, *Integrated Environment, Safety, and Health Management System Description*, which promotes the integration of environment, safety, and health into PHMC work planning and execution. Because of the fundamental format change, initial users should carefully review the introductory paragraphs to Section 5.0, *Process*, and Section 5.1, *Using an Activity-Based Procedure Approach*, prior to applying this procedure to any specific work scope.

NOTE: Definitions of pertinent terms used in this document are provided in Appendix A. Terms defined are noted in the text in *italics* when they initially are used in each section.

Unless otherwise noted, reference to organizations within this procedure are Fluor Hanford, Inc. (FH) organizations.

2.0 SCOPE

This Level 2 Management Control Procedure applies to FH, FH subcontractors, and organizations performing work under the scope of the PHMC.

3.0 IMPLEMENTATION

This procedure is effective upon publication. For 90 days following publication, use of the *Environmental-Activity Screening form* (Site Form A-6003-727) referenced in this procedure will be optional while usage-orientation sessions are underway. After 90 days, use of the form will be mandatory where so noted in the procedure, and will replace the use of the *NEPA Screening form* (Site Form A-6001-497). The content of the *NEPA Screening form* has been incorporated into the *Environmental-Activity Screening form*.

Environmental Protection Processes

4.0 REQUIREMENTS

This procedure implements the requirements of HNF-RD-15332, *Environmental Protection Requirements*. Each section of this procedure references the corresponding section(s) of HNF-RD-15332 where the basis requirements are identified. Environmental requirements primarily key to federal, state, and local regulations, permit conditions, provisions of the *Hanford Federal Facility Agreement and Consent Order* (the Tri-Party Agreement [TPA]), and DOE orders; these same requirements are also contained in Sections C.4.2, C.5.1 J.C.1, J.C.2, H.4, H.8, H.18, I.8, I.10, I.16, and I.43 through I.47 of the PHMC.

5.0 PROCESS

The activities in this procedure are organized into the 13 *activity categories* listed in Table 1. These activity categories reflect the lifecycle of a typical *project* or facility, and complement the approach used in FH engineering, construction, and maintenance governing documentation (e.g., HNF-RD-14988, *Project Management Requirements*; HNF-GD-14989, *Project Management Guidance*; HNF-PRO-14990, *Construction Management*; HNF-12115, *Work Management*; and HNF-GD-12116, *Work Planning Guide*). The environmental activity categories also reflect services that must be performed to support this lifecycle.

Table 1
Lifecycle or Service Activity Categories

Activity Category	Lifecycle
Performing Project Scoping Activities and Siting Studies.	Project planning/siting studies
Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes).	Facility construction/modification
Operating Facilities, Equipment, or Processes.	Facility operation
Maintaining and Repairing Facilities, Equipment, or Processes.	Facility maintenance/repair
Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes.	Facility closure - decontamination, deactivation, decommission, demolition
Activity Category	Service
Purchasing Goods or Services.	Procurement
Excavating or Otherwise Disturbing Soils.	Excavation
Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances.	Regulatory reporting
Generating, Identifying, and Designating Waste.	Waste management
Managing, Accumulating, or Storing Waste or Materials.	
Treating Dangerous and/or Mixed Waste.	
Disposing of Waste and Recycling Materials.	
Discharging Existing Approved Wastewaters.	

Environmental Protection Processes

A complete listing of activities organized by category is provided at the end of this section and in the *Environmental-Activity Screening form*. For any given workscope it is possible that: (1) more than one activity category could apply, and/or (2) more than one activity within an activity category could apply. The *Environmental-Activity Screening form* provides a means for quickly determining those portions of this procedure that must be followed to complete any given workscope.

All but the first activity category related to the lifecycle (as listed in Table 1) contains an initial activity termed *general*. Each *general activity* includes triggers for more extensive actions or documentation, which should be performed by, or with input from, an environmental professional (i.e., *Cognizant Environmental Compliance Officer* [ECO], Environmental Protection [EP] Point-of-Contact [POC]). A *specific activity* is more focused and may, or may not, need the assistance of an environmental professional to perform. Associated with the title of each general and specific activity is a cross-reference to a section(s) of the requirements document(s) (i.e., HNF-RD-15332).

The process steps of both general and specific activities are presented using a playscript format. The actionee assigned to perform a process step is most frequently the *Responsible Manager*, with the recognition that this manager will flow down assignments to individuals who can most appropriately execute the work (HNF-MP-001, *Fluor Hanford Management Plan*). Where project/facility-specific environmental expertise is needed, the actionee most frequently assigned is the Cognizant ECO. When discipline-specific expertise, or coordination/integration across projects is needed, the actionee most frequently assigned is an EP POC. ECO listings and POC listings are located on the intranet.

The order of process steps within an activity is generally presented in accordance with the following five ISMS core functions: (1) Define the scope of work; (2) Identify hazards, environmental impacts, and environmental requirements; (3) Analyze hazards and environmental impacts and implement controls; (4) Perform work within controls; and (5) Provide feedback and continuous improvement (HNF-MP-003, *Integrated Environment, Safety, and Health Management System Description*).

The processes in this section are arranged as they apply to the following Activity Categories and associated activities. A brief description of the applicability of each activity category is provided, as well as Navigation links to each associated activity.

Using an Activity-Based Approach

NOTE: This section provides instructions for using the activity-based approach, and should be reviewed by initial users of this procedure. The section is based on the organization of the *Environmental-Activity Screening form*, and should also be referred to at those points in the procedure where the form is required to be completed.

Section 5.1 Using an Activity-Based Approach

Performing Project Scoping Activities and Siting Studies

NOTE: The activity in this category applies to the performance of project scoping and siting studies for new construction projects or major modifications to existing buildings or structures. The activity should be initiated before the expenditure of funds for the scoping activities or siting studies. The approvals to proceed with the scoping activities and siting studies are only directed at performing such work as field investigations identified at the initiation of the project. Approval to proceed

Environmental Protection Processes

with the scoping activities or siting studies does not constitute approval to construct or modify the building or structure.

Section 5.2 Performing Project Scoping Activities and Siting Studies

Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes)

NOTE: The activities in this category apply to the construction or modification of facilities, buildings, structures, or equipment, including the modification to existing processes. Applications include, but are not limited to, the following: new construction projects; *modifications* to an existing facility, building, equipment or process; modifications to roads or grounds; excavations or disturbances to soil; changes in a process or operating condition that emits potential air pollutants, including an increase in chemical use rates or the addition of a new chemical (including any new isotope) to a process or experiment; new operating process (that is, a process not previously or routinely conducted at that specific location).

Section 5.3 Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General

Section 5.4 Constructing or Modifying Stationary Criteria/Toxic Air Emission Sources (Including Changes to Processes)

Section 5.5 Constructing or Modifying Air Emission Units That Potentially Emit Radionuclides to the Ambient Air (Including Changes to Processes)

Section 5.6 Constructing or Modifying *Resource Conservation and Recovery Act* Treatment, Storage, and/or Disposal Units (Including Adding New Wastes and Changing Permit Text)

Section 5.7 Constructing or Modifying Drinking Water Systems

Section 5.8 Constructing or Modifying Sanitary Sewer Systems, or Adding or Modifying Discharges to the Columbia River, or Discharges to the Land

Section 5.9 Constructing or Modifying Storage Tanks or Container Storage Areas That Store Oil

Section 5.10 Installing Regulated Underground Storage Tanks

Section 5.11 Relocating Portable Criteria Pollutant Air Emission Sources, or Bringing Portable or Stationary Criteria Air Pollutant Emission Sources Onto the Site

Operating Facilities, Equipment, or Processes

NOTE: The activities in this category apply to operating facilities, buildings, equipment, or processes. These include activities that pertain to *National Environmental Policy Act* routine administrative activities, handling of special status animals or plants, and responding to regulatory agency inspections.

Section 5.12 Operating Facilities, Equipment, or Processes - General

Section 5.13 Operating Facilities, Equipment, or Processes That Emit Criteria/Toxic Air Pollutants

Section 5.14 Operating Stationary Facilities and Equipment That Potentially Emit Radionuclides to the Ambient Air

Section 5.15 Operating Regulated Underground Storage Tanks

Section 5.16 Operating Onsite Sewage Systems

Section 5.17 Operating Storage Tanks or Container Storage Areas That Store Oil

Section 5.18 Operating Drinking Water Systems

Environmental Protection Processes

- Section 5.19.....Operating Interim Status *Resource Conservation and Recovery Act* Treatment, Storage, and/or Disposal Units
- Section 5.20.....Operating Final Status *Resource Conservation and Recovery Act* Treatment, Storage, and/or Disposal Units
- Section 5.21.....Using Portable or Temporary Air Emission Sources That Emit Radionuclides
- Section 5.22.....Using Polychlorinated Biphenyl Containing Oil-Filled Electrical Equipment, Electromagnets, Switches, and Voltage Regulators
- Section 5.23.....Using and Storing Chemicals, Chemical Products, and Hazardous Materials
- Section 5.24.....Performing Operations Consistent With *National Environmental Policy Act* Routine Administrative Activities
- Section 5.25.....Finding Special Status Animals or Plants (Live or Dead) on the Hanford Site
- Section 5.26.....Responding to Regulatory Agency Inspections

Maintaining and Repairing Facilities, Equipment, or Processes

NOTE: The activities in this category apply to maintaining or repairing facilities, buildings, equipment or processes. These activities apply to all maintenance or repair circumstances, including the testing and calibration of equipment.

- Section 5.27.....Maintaining and Repairing Facilities, Equipment, or Processes - General
- Section 5.28.....Maintaining Stationary Facilities and Equipment That Potentially Emit Radionuclides to the Ambient Air
- Section 5.29.....Maintaining or Repairing Category 1 (Major) Continuous Emissions Monitoring or Emissions Measurement Systems
- Section 5.30.....Maintaining and Testing High Efficiency Particulate Air Filters
- Section 5.31.....Starting Up, Shutting Down, or Performing Scheduled Maintenance on Stationary Air Emissions Sources
- Section 5.32.....Repairing an Onsite Sewage System
- Section 5.33.....Reporting New Waste Information Data System Sites and Reclassifying or Reassigning Waste Information Data System Sites
- Section 5.34.....Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts
- Section 5.35.....Servicing Motor Vehicle Air Conditioners
- Section 5.36.....Maintaining, Servicing, or Repairing Stationary Heating, Ventilation, Air Conditioning, and Refrigeration Equipment
- Section 5.37.....Performing Activities That May Break Up, Disturb, or Block Access to Regulated Asbestos-Containing Material
- Section 5.38.....Removing Asbestos-Containing Material (i.e., Renovation)
- Section 5.39.....Repairing Regulated Underground Storage Tanks
- Section 5.40.....Applying and Storing Pesticides
- Section 5.41.....Conducting Open Burning
- Section 5.42.....Decontaminating Materials and Equipment Contaminated With Polychlorinated Biphenyls

Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes

NOTE: The activities in this category apply to discontinuing use of, or closing facilities, buildings, structures, or equipment, including closing existing processes. The general activity applies to:

NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

(1) closing a facility, equipment, or process; (2) deactivating, decontaminating, or dismantling of any stationary air emissions source; (3) discontinuing use of a radionuclide emission source; (4) deactivating, decommissioning, and decontaminating a facility, building, or trailer; (5) deactivating or dismantling power lines, communication lines, and substations; or (6) discontinuing use of a process, or equipment that changes a process. In addition, there are specific closure activities.

Section 5.43.....Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General

Section 5.44.....Temporarily Closing Regulated Underground Storage Tanks - "

Section 5.45.....Permanently Closing Regulated Underground Storage Tanks or Making a Change in Service

Section 5.46.....Closing *Resource Conservation and Recovery Act* Treatment, Storage, and/or Disposal units

Section 5.47.....Discontinuing Use Of or Relocating a Satellite Accumulation Area

Section 5.48.....Discontinuing Use Of or Closing a 90-Day Accumulation Area

Section 5.49.....Closing or Removing a Septic Tank From Service

Section 5.50.....Performing *Comprehensive Environmental Response, Compensation and Liability Act* Response Actions

Section 5.51.....Discontinuing Use Of or Closing Injection Wells

Purchasing Goods or Services

NOTE: The activities in this category apply to the purchasing of goods and services that have specific environmental requirements, in addition to the requirements of the *National Environmental Policy Act*.

Section 5.52.....Purchasing Refrigerants, Appliances Containing Refrigerants, System Components That Operate Using Refrigerants, or Refrigerant Recovery or Recycling Equipment

Section 5.53.....Procuring Pesticides or Pesticide Applicators

Section 5.54.....Procuring High Efficiency Particulate Air Filters

Excavating or Otherwise Disturbing Soils

NOTE: The activity in this category applies to the excavation or disturbance of soils that occurs during activities other than during siting studies, construction, modification, maintenance, or deactivation and decommissioning. This includes, for example, soil disturbance during the installation of soil borings and during the performance of soil sampling and/or remedial action, and off-road travel.

Section 5.55.....Excavating or Otherwise Disturbing Soils

Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances

NOTE: The activity in this category applies to non-emergency *spills/releases*, fires and explosions, and conditions where an environmental permit or regulatory limit is exceeded, or there is a potential non-compliance with an environmental permit condition or regulation.

Environmental Protection Processes

Section 5.56.....Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances

Generating, Identifying, and Designating Waste

NOTE: The activities in this category apply to generating waste, and the subsequent proper identification and characterization of waste to ensure for proper management.

Section 5.57.....Generating Waste

Section 5.58.....Identifying and Designating Waste

Section 5.59.....Generating Investigation Derived Waste Within a Waste Site or Suspected Waste Site

Section 5.60.....Generating Investigation Derived Waste Outside a Waste Site

Section 5.61.....Identifying and Designating Investigation Derived Waste

Managing, Accumulating, or Storing Waste or Materials

NOTE: The activities in this category apply to managing, accumulating, or storing waste or specific materials, with the exception of storing dangerous and/or mixed waste in a *Resource Conservation and Recovery Act* (RCRA) treatment, storage, and/or disposal (TSD) unit. RCRA TSD unit activities are addressed under the *Operating Facilities, Equipment, or Processes* Activity Category.

Section 5.62.....Managing Soil, Groundwater, and Debris Contaminated With Listed Dangerous Waste

Section 5.63.....Managing Waste Characterization and Treatability Study Samples and Their Residues

Section 5.64.....Managing Unknown Waste

Section 5.65.....Managing Materials With Potential Future Use

Section 5.66.....Accumulating Waste in a Satellite Accumulation Area

Section 5.67.....Accumulating Waste in a 90-Day Accumulation Area

Section 5.68.....Storing Polychlorinated Biphenyl Items For Reuse

Section 5.69.....Storing Polychlorinated Biphenyl Waste and Polychlorinated Biphenyl Items For Disposal

Section 5.70.....Storing Asbestos Waste

Section 5.71.....Storing Investigation Derived Waste

Treating Dangerous and/or Mixed Waste

NOTE: The activities in this category apply to the performance of work related to dangerous and/or mixed waste treatment.

Section 5.72.....Performing Treatability Studies

Section 5.73.....Performing Generator Treatment of Dangerous and/or Mixed Waste

Section 5.74.....Treating Dangerous and/or Mixed Waste

Disposing of Waste and Recycling of Materials

NOTE: The activities in this category apply to the disposal of wastes and recycling of materials.

Section 5.75.....Disposing of Containerized Waste

Section 5.76.....Disposing of Asbestos Waste

Environmental Protection Processes

- Section 5.77.....Disposing of Sanitary Waste in Dumpsters
- Section 5.78.....Disposing of Empty Containers
- Section 5.79.....Disposing of Inert and Demolition Waste (Nonradioactive, Nondangerous)
- Section 5.80.....Disposing of Nondangerous, Nonradioactive, Containerized Waste
- Section 5.81.....Disposing of Polychlorinated Biphenyl Waste and Polychlorinated Biphenyl Items
- Section 5.82.....Disposing of Investigation Derived Waste
- Section 5.83.....Distributing, Excessing, or Disposing of Appliances Containing Refrigerants
- Section 5.84.....Managing Recyclable or Reclaimable Materials Through the Centralized Consolidation/Recycling Center
- Section 5.85.....Managing Lead-Acid Batteries That Will *Not* Be Sent to the Centralized Consolidation/Recycling Center
- Section 5.86.....Accumulating Used Oil For Recycling and Managing Used Automotive Oil Filters
- Section 5.87.....Accumulating Spent Antifreeze For Recycling
- Section 5.88.....Accumulating Used Shop Towels For Recycling

Discharging Existing Approved Wastewaters

NOTE: The activities in this category apply to the discharge of existing, approved wastewaters to the Columbia River, the land surface (including the discharge of purgewater and discharges to injection wells), and to sanitary sewer systems. New discharges of wastewaters are included in the *Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes)* Activity Category.

- Section 5.89.....Discharging Wastewaters to the Columbia River
- Section 5.90.....Discharging Wastewaters to the Land Surface, Including Injection Wells
- Section 5.91.....Discharging Wastewaters to a Sanitary Sewer System

5.1 Activity-Based Procedure Process

[Basis: HNF-RD-15332, Section 2.1]

NOTE: Although not required, except where noted in this procedure, use of the *Environmental-Activity Screening form* (Site Form A-6003-727) is recommended to facilitate the identification of applicable activities. Thus, the organization of Section 5.1 is keyed to the organization of the *Environmental-Activity Screening form*. A process flow diagram of the activity-based procedure process is provided in Figure 1 on the EP website.

This procedure should be used early in the planning stages of work to determine if the work is covered by existing:

- NEPA or *State Environmental Policy Act* (SEPA) documentation.
- *Hanford Cultural Resources Compliance Review* (HCRC) or *Ecological Compliance Resources Review* (ECR) approvals.
- *Comprehensive Environmental Response, Compensation and Liability Act* (CERCLA) documentation (if applicable).

Environmental Protection Processes

- Permits, regulatory agreements/orders, and/or other environmental requirements and documentation.

If the work is not adequately covered, early use of this procedure will help ensure that work delays will not occur due to the need for environmental approvals and/or documentation.

Actionee	Step	Action
Reviewer	1.	<ol style="list-style-type: none">In Section A (Work Description) of the <i>Environmental-Activity Screening form</i> (Site Form A-6003-727), provide a work title and a one-to-two sentence descriptive summary.
<p>NOTE: Section 5.2, <i>Performing Project Scoping Activities and Siting Studies</i>, and the General Category Sections, <u>5.3</u>, <u>5.12</u>, <u>5.27</u>, and <u>5.43</u>, outline what type of work is to be addressed by the <i>Environmental-Activity Screening form</i>. This work is intended to be consistent with work definitions used in <u>HNF-RD-14988</u>, <i>Project Management Requirements</i>; <u>HNF-GD-14989</u>, <i>Project Management Guidance</i>; <u>HNF-PRO-14990</u>, <i>Construction Management</i>; <u>HNF-12115</u>, <i>Work Management</i>; and <u>HNF-GD-12116</u>, <i>Work Planning Guide</i>.</p>		
		<ol style="list-style-type: none">In Section A, also provide a unique identification number, which can be used to distinguish the work, and the date that use of the form was initiated.If the form is being revised after a previous revision received approvals, provide the next number in the sequence to distinguish the latest revision.
	2.	<ol style="list-style-type: none">If the reviewer needs to make a NEPA determination, go to Step 5.1.3.If the reviewer already has made a NEPA determination, and needs to determine other environmental activities that apply to the work, go to <u>Step 5.1.4</u>.
	3.	Complete Section B-1 (Cultural and/or Ecological Resource Evaluation), Sections B-2 and B-3 (Site-Wide <i>Categorical Exclusion</i> Applicability), B-4 (CERCLA Response Action), and B-5 (Integral Elements). For assistance, use the instructions in HNF-PRO-15335, <i>Environmental Permitting and Documentation Preparation</i> , Section 5.1, <i>Performing Environmental Reviews and Preparing National Environmental Policy Act Documentation</i> , and/or contact the NEPA/SEPA POC.

NOTE: If the *Environmental-Activity Screening form* is being used to make a formal NEPA applicability determination, individual(s) responsible for initially filling out the form must be a *Cognizant ECO* or have a minimum of 2 hours of NEPA on-the-job training (provided and/or approved by the EP Director).

The *NEPA Screening form* (Site Form A-6001-497) can be used in lieu of the *Environmental-Activity Screening form* for 90 days after the publication of this procedure. The 90-day phase-in

Environmental Protection Processes

Actionee	Step	Action
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period will enable usage-orientation sessions to take place for the *Environmental-Activity Screening form*. The content of the *NEPA Screening form* has been incorporated into the *Environmental-Activity Screening form*.

EXCEPTION: "No planning required" work activities as defined in *HNF-12115, Work Management*, or within facility implementing procedures is pre-screened for NEPA applicability and other environmental requirements and does *not* require use of the *NEPA Screening form* or the *Environmental-Activity Screening form*.

4. Using Section E of the *Environmental-Activity Screening form*, and the descriptions provided in the *Activity Index* preceding Section 5.1, select one or more of the following *activity categories* that apply to the work:

- Performing Project Scoping Activities and Siting Studies.
- Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes).
- Operating Facilities, Equipment, or Processes.
- Maintaining and Repairing Facilities, Equipment, or Processes.
- Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes.
- Purchasing Goods or Services.
- Excavating or Otherwise Disturbing Soils.
- Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances.
- Generating, Identifying, and Designating Waste.
- Managing, Accumulating, or Storing Waste or Materials.
- Treating Dangerous and/or Mixed Waste.
- Disposing of Waste and Recycling of Materials.
- Discharging Existing Approved Wastewaters.

5. From within the Activity Category or Categories selected:

Environmental Protection Processes

Actionee	Step	Action
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- a. Select the "General" activity for the category, if present.

NOTE: Four categories of activities include general requirements that apply in all instances when the category applies. These include the word "General" at the end of the title and include:

- Constructing or Modifying Facilities, Equipment or Processes (Including Changes to Operating Processes) – General.
- Operating Facilities, Equipment, or Processes – General.
- Maintaining and Repairing Facilities, Equipment, or Processes – General.
- Discontinuing Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes – General.

- b. Select the specific activity or activities that apply.

NOTE: Several activities may apply to the defined workscope. For example, when planning a modification to a criteria/toxic air emissions source where waste would be generated, the reviewer would select the following:

Activity Category: Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes)

Section 5.3 Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) – General

Section 5.4 Constructing or Modifying Criteria/Toxic Air Emission Sources (Including Changes to Processes)

Activity Category: Generating, Identifying, and Designating Waste

Section 5.57 Generating Waste

Section 5.58 Identifying and Designating Waste

6. Based upon a review of the applicable activities, complete Section C (Work Management Applicability) of the *Environmental-Activity Screening form*. Make a note of any new environmental documents, approvals, or other actions needed.

7. Fill out the "Reviewer" portion of Section D of the form (Approvals). If the "Reviewer" is not an environmental professional (i.e., affiliated with the

Environmental Protection Processes

Actionee	Step	Action
		Environmental Protection organization), request that the Cognizant ECO or <u>Environmental-Activity Screening form</u> POC complete the "Concurrence" portion of the form.
Cognizant ECO or Environmental Activity Screening Form POC	8.	Complete a review of the <u>Environmental-Activity Screening form</u> submitted by the "Reviewer." Work with the "Reviewer" if the responses on the form need to be modified. Upon completion of any modifications, fill out the "Concurrence" portion of the form.
Reviewer	9.	Enter the approved <u>Environmental-Activity Screening form</u> into the applicable project file or work package.
	10.	Provide the Responsible Manager with documentation (e.g., e-mail) of the results of the environmental-activity screening review, and the anticipated timeframe needed to complete any required environmental actions (e.g., obtain/modify permits, obtain approvals, complete other environmental documentation).

5.2 Performing Project Scoping Activities and Siting Studies

[Basis: HNF-RD-15332, Section 2.2]

Actionee	Step	Action
Responsible Manager	1.	Before starting any project scoping activities or siting studies for new facilities, equipment, or processes, or before entering into binding contracts to complete any part of the activities, or procuring goods or services for the activities, have qualified personnel complete an <u>Environmental-Activity Screening form</u> (Site Form A-6003-727).

NOTE: Individual(s) responsible for initially filling out an Environmental-Activity Screening form must be a *Cognizant ECO* or have a minimum of 2 hours of NEPA on-the-job training (provided and/or approved by the EP Director).

The NEPA Screening form (Site Form A-6001-497) can be used in lieu of the Environmental-Activity Screening form for 90 days after the publication of this procedure. The 90-day phase-in period will enable usage-orientation sessions to take place for the Environmental-Activity Screening form. The content of the NEPA Screening form has been incorporated into the Environmental-Activity Screening form.

Cognizant ECO (or other NEPA-Trained Individual)	2.	Complete the <u>Environmental-Activity Screening form</u> according to the instructions in <u>Section 5.1</u> . Use this tool to determine if the proposed project is covered by existing: <ul style="list-style-type: none"> • NEPA or <i>State Environmental Policy Act</i> (SEPA) documentation.
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NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> • <i>Hanford Cultural Resources Compliance Review (HCRC) or Ecological Compliance Resources Review (ECR) approvals.</i> • <i>Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) documentation (if applicable).</i> • <i>Permits, regulatory agreements/orders, and/or other environmental requirements and documentation.</i>
Cognizant ECO	3.	<p>Review the <i>Environmental-Activity Screening form</i>, or request that the <u>Environmental-Activity Screening Form POC</u> arrange for review of the form, assessing for the following:</p> <ul style="list-style-type: none"> a. Determine if NEPA or SEPA coverage is sufficient; if not, address the NEPA/SEPA according to the instructions in HNF-PRO-15335, <i>Environmental Permitting and Documentation Preparation</i>, Section 5.1, <i>Performing Environmental Reviews and Preparing National Environmental Policy Act Documentation</i>. b. Determine if HCRC and/or ECR coverage is sufficient; if not, address these reviews according to the instructions in HNF-PRO-15335, Section 5.1. c. If the scoping/siting field activities will potentially disturb chemical or radioactive contamination, determine whether an air emission <i>Notice of Construction (NOC)</i> is required; if required, prepare an NOC according to the instructions in HNF-PRO-15335, Section 5.2, <i>Permitting Criteria/Toxic Air Emissions Sources</i>, and/or Section 5.3, <i>Permitting Radioactive Air Emissions Sources</i>. <p>NOTE: The disturbance of radioactive contamination is a potential source of radioactive airborne emissions and may constitute a regulated activity. An advance submittal and regulatory approval of a NOC application may be required by the Washington State Department of Health (WDOH) and by the U.S. Environmental Protection Agency (EPA), Region 10. The approval requirements apply to temporary, portable, or permanent activities.</p> <ul style="list-style-type: none"> d. Determine if Section E (Activity Screening) of the <i>Environmental-Activity Screening form</i> (Site Form A-6003-727) indicates that other environmental permits, approvals, or documentation are required to proceed with the project, beyond the siting/scoping phase. e. Complete Sections C (Work Management Applicability) and D (Approvals) of the <i>Environmental-Activity Screening form</i>.

Environmental Protection Processes

Actionee	Step	Action
Responsible Manager	4.	Provide the Responsible Manager with documentation (e.g., e-mail) of the results of the environmental-activity screening review, and the anticipated timeframe needed to complete any required environmental actions (e.g., obtain/modify permits, obtain approvals, complete other environmental documentation). Assist the Responsible Manager to complete these actions.
	5.	Before performing an activity that has the potential to impact a <i>Waste Information Data System (WIDS) waste management unit site</i> , proceed according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u> .
	6.	Proceed with the project according to the requirements in the NEPA and/or SEPA approvals, HCRC approvals, ECR approvals, permit conditions, and any other requirements or approvals identified.
	7.	If soil is excavated and cannot be returned to its original site, and is known to contain a listed waste, implement the instructions in <u>Section 5.62, Managing Soil, Groundwater, and Debris Contaminated With Listed Dangerous Waste</u> .
	8.	If the activity affected a WIDS site and new information was identified, or a new WIDS site was created, proceed according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u> .
	9.	Maintain copies of the <i>Environmental-Activity Screening form</i> , NEPA/SEPA documentation, HCRC and ECR reviews/reports, permits, and any other requirements or approval documentation according to the instructions in <u>Section 7.0, Records</u> .

5.3 Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) – General

[Basis: HNF-RD-15332, Section 2.3]

Actionee	Step	Action
Responsible Manager	1.	Before starting any of the following:
		<ul style="list-style-type: none"> New construction <i>projects</i>,
		<ul style="list-style-type: none"> <i>Modifications</i> to an existing facility, equipment, or process (also see <i>Modification – Air</i>),
		<ul style="list-style-type: none"> Modifications to roads or grounds,
		<ul style="list-style-type: none"> Excavations or disturbances to soil,

Environmental Protection Processes

Actionee	Step	Action
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- Changes in a process or operating condition that emits potential air pollutants, including an increase in chemical use rates or the addition of a new chemical (including any new isotope) to a process or experiment,
- New operating process (i.e., process not previously or routinely conducted at that specific location),
- Changes to operating conditions that affect permit conditions or *emission* limits, the type or amount of emission, effluent, or waste process improvements,

or

Before entering into binding contracts to complete any part of one of the above or procuring goods or services for one of the above, have qualified personnel complete an *Environmental-Activity Screening form* (Site Form A-6003-727).

NOTE: Individual(s) responsible for initially filling out an *Environmental-Activity Screening form* must be a *Cognizant ECO* or have a minimum of 2 hours of NEPA on-the-job training (provided and/or approved by the EP Director).

The *NEPA Screening form* (Site Form A-6001-497) can be used in lieu of the *Environmental-Activity Screening form* for 90 days after the publication of this procedure. The 90-day phase-in period will enable usage-orientation sessions to take place for the *Environmental-Activity Screening form*. The content of the *NEPA Screening form* has been incorporated into the *Environmental-Activity Screening form*.

The NEPA review of facility modifications may occur during the work package preparation stage, since facility modifications are not always implemented.

EXCEPTION: "No planning required" work activities as defined in HNF-12115, Work Management, or within facility implementing procedures is pre-screened for NEPA applicability and other environmental requirements and does *not* require use of the *NEPA Screening form* or the *Environmental-Activity Screening form*.

Cognizant
ECO (or other
NEPA-Trained
Individual)

2. Complete the *Environmental-Activity Screening form* (according to the instructions in Section 5.1) to determine if the proposed project is covered by existing:
 - NEPA or *State Environmental Policy Act* (SEPA) documentation.
 - *Hanford Cultural Resources Compliance Review* (HCRC) or *Ecological Compliance Resources Review* (ECR) approvals.

Environmental Protection Processes

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
		<ul style="list-style-type: none">• <i>Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)</i> documentation (if applicable).• Permits, approvals, and/or other environmental requirements and documentation.
Cognizant ECO	3.	<p>Review the results of Step 2, or request that the <u>Environmental-Activity Screening Form</u> POC arrange for review of these results. Assess for the following:</p> <ul style="list-style-type: none">a. Determine if NEPA or SEPA coverage is sufficient; if not, address the NEPA/SEPA according to the instructions in HNF-PRO-15335, <i>Environmental Permitting and Documentation Preparation</i>, Section 5.1, <i>Performing Environmental Reviews and Preparing National Environmental Policy Act Documentation</i>.b. Determine if HCRC and/or ECR coverage is sufficient; if not, address these reviews according to the instructions in HNF-PRO-15335, Section 5.1.c. Determine if other environmental permits, approvals, or documentation are required to proceed with the project.d. On the <i>Environmental-Activity Screening form</i>, complete Sections C (Work Management Applicability) and D (Approvals).
	4.	<p>Provide the Responsible Manager with documentation (e.g., e-mail) of the results of the environmental review, and the anticipated timeframe needed to complete any required environmental actions (e.g., obtain/modify permits, obtain approvals, complete other environmental documentation). Assist the Responsible Manager to complete these actions.</p>
Responsible Manager	5.	<p>Before performing an action that has the potential to impact a <i>Waste Information Data System (WIDS) waste management unit site</i>, proceed according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u>.</p>
	6.	<p>Before starting any demolition or renovation activities, contact the Cognizant Asbestos POC to determine if the activities requires submittal of a Notification of Intent (NOI) to the Benton Clean Air Authority (BCAA).</p> <ul style="list-style-type: none">a. Contact the <u>Cognizant ECO</u> if uncertainty exists as to who the Cognizant Asbestos POC is for the project and/or facility.

Environmental Protection Processes

Actionee	Step	Action
Asbestos POC	b.	<p>Have a Washington State-Certified Asbestos Inspector determine the types and quantities of asbestos present.</p> <ol style="list-style-type: none"> From information obtained, determine which notification requirements apply, if any. Check the facility listing and the scope of activities against the pre-approved <i>Annual NOI</i> for facilities already covered under an approved NOI. <p>c. If work involves removing or demolishing a <i>load-bearing structural member</i>, or the combined amount of regulated asbestos-containing material to be disturbed is above BCAA threshold values (3.05 linear meters [10 linear feet] on piping or 4.46 square meters [48 square feet] on other facility components) follow the instructions in <u>Section 5.38, Removing Asbestos-Containing Material (i.e., Renovation)</u>, in addition to the instructions in this section.</p>
Responsible Manager	7.	Do <i>not</i> introduce exotic plant or animal species, including those intended for the purposes of soil stabilization or revegetation, pest control, or landscaping, without prior review by the <u>NEPA/SEPA POC</u> .
	8.	If the work will potentially disturb chemical or radioactive contamination, determine whether an air emission NOC is required; if required, prepare an NOC according to the instructions in HNF-PRO-15335, Section 5.2, <i>Permitting Criteria/Toxic Air Emissions Sources</i> , and/or Section 5.3, <i>Permitting Radioactive Air Emissions Sources</i> .
<p>NOTE: The disturbance of radioactive contamination is a potential source of radioactive airborne emissions and may constitute a regulated activity. An advance submittal and regulatory approval of a NOC application may be required by WDOH and by EPA, Region 10. The approval requirements apply to temporary, portable, or permanent activities.</p>		
	9.	<p>Perform the following during implementation of the construction or modification project:</p> <ol style="list-style-type: none"> Proceed with the project according to the requirements in the NEPA and/or SEPA approvals, HCRC approvals, ECR approvals, permit conditions, and any other requirements or approvals identified. If asbestos is found during a demolition or renovation project where no asbestos was expected, stop work and evaluate the need for an individual NOI. (See <u>Section 5.38</u>). Stop work and ensure permit approval coverage is provided if radioactive

Environmental Protection Processes

Actionee	Step	Action
		material is found where none was expected and where it may be potentially contacted.
	d.	Take precautions to prevent the emission of air pollutants resulting from <i>fugitive emissions</i> .
		1. Minimize fugitive dust generation during construction or related activities, or by any operation activities.
		2. Contact the <u>Non-Radioactive Air POC</u> to obtain additional guidance, as needed.
	10.	If soil is excavated and cannot be returned to its original site, and is known to contain a listed waste, implement the instructions in <u>Section 5.62, Managing Soil, Groundwater, and Debris Contaminated With a Listed Dangerous Waste</u> .
	11.	Prepare a Facility Effluent Monitoring Plan (FEMP), or modify an existing FEMP, according to the instructions in HNF-PRO-15334, <i>Effluent and Environmental Monitoring</i> , Section 5.2, <i>Maintaining and Implementing the Effluent and Environmental Monitoring Program</i> , if one or more of the following applies: <ul style="list-style-type: none">• A total potential offsite dose from radionuclides exceeds 0.1 millirem (mrem) per year effective dose equivalent (EDE) from any one discharge point,• Any regulated material discharged from the facility could exceed a CERCLA-reportable quantity or a permitted quantity,• A liquid effluent contains radionuclides that would cause any person consuming that effluent to receive an EDE greater than 4.0 mrem per year, and/or• A process or regulatory change occurs that may affect the potential dose to the <i>maximally exposed individual</i> or effluent characteristics identified in an existing FEMP.
	a.	Obtain concurrence from the EP Monitoring & Reporting Manager.
	12.	If the work affected a WIDS site and new information was identified, or a new WIDS site was created, proceed according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u> .
	13.	Maintain copies of the completed <i>Environmental-Activity Screening form</i> , HCRC

Environmental Protection Processes

Actionee	Step	Action
		and ECR reviews/reports, NOIs, permits, and any other documents according to the instructions in <u>Section 7.0, Records</u> .

5.4 Constructing or Modifying Stationary Criteria/Toxic Air Emission Sources (Including Changes to Processes)

[Basis: HNF-RD-15332, Section 2.4]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General</u> , when planning to construct or modify stationary criteria/toxic air emission sources (including changes to processes). If the emissions source will potentially emit radionuclides in addition to criteria/toxic pollutants, follow the instructions in <u>Section 5.5, Constructing or Modifying Air Emission Units That Potentially Emit Radionuclides to the Ambient Air Including Changes to Processes</u> , in addition to the instructions in this section.
	2.	Do <i>not</i> start new construction or a modification of an air emission source until approved by the Washington State Department of Ecology (Ecology) (i.e., an order of approval issued), except for those exempt sources identified under WAC 173-400-110(4) and (5) or those activities evaluated by the facility and determined to not meet applicability under New Source Review (NSR).

NOTE: Actual construction on a project proposed for NSR exemption may begin 31 days after Ecology receives the summary unless Ecology notifies within 30 days that the exemption is denied (i.e., the subject project needs to prepare a Notice of Construction application).

	a.	Contact the <u>Cognizant ECO</u> to perform a permitting applicability review and prepare appropriate permit documents.
Cognizant ECO	b.	Evaluate proposed new air emissions sources, and <i>modifications</i> to existing sources to determine permitting actions. (See HNF-PRO-15335, <u>Environmental Permitting and Documentation Preparation</u> .)
	1.	Provide the Responsible Manager with documentation (e.g., e-mail) of the permitting actions required, if any, and prepare permit documents or modifications.
	c.	Contact the <u>Non-Radioactive Air POC</u> for assistance.

NOTE: A minimum time of 90 days may be needed for Ecology to adequately review and approve an NSR application. Additional time could be required if Ecology determines there is a need to

Environmental Protection Processes

Actionee	Step	Action
		provide for public involvement and/or a potential for public interest.

Responsible Manager	3. Start construction or modification of an air emissions source after receipt of Ecology approval and within 18 months after receipt of such approval.
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NOTE: Approval to construct or modify a source becomes invalid if construction is not started within 18 months after receipt of approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project. Each phase must start construction within 18 months of the projected and approved commencement date.

4. Implement the instructions in Section 5.31, Starting Up, Shutting Down, or Performing Scheduled Maintenance on Stationary Air Emissions Sources as appropriate for the project.
5. Maintain permitting documentation and records of testing and calibration according to the instructions in Section 7.0, Records.

5.5 Constructing or Modifying Air Emission Units That Potentially Emit Radionuclides to the Ambient Air (including changes to processes)

[Basis: HNF-RD-15332, Section 2.5]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General</u> , when constructing or modifying air emission units (including changes to processes). If the emission source will emit criteria/toxic pollutants in addition to radionuclides, follow the instructions in <u>Section 5.4, Constructing or Modifying Stationary Criteria/Toxic Air Emission Sources (Including Changes to Processes)</u> , in addition to the instructions in this section.
	2.	Do not start new construction or a modification of an air emission source until the WDOH and the EPA approve a <i>Notice of Construction (NOC)</i> , where applicable. <ol style="list-style-type: none"> a. Contact the <u>Cognizant ECO</u> to perform a permitting applicability review and prepare appropriate permit documents. b. Evaluate proposed new air emission sources, or <i>modification</i> to existing sources to determine permitting actions. (See HNF-PRO-15335, <i>Environmental Permitting and Documentation Preparation</i>.)
Cognizant ECO		

Environmental Protection Processes

Actionee	Step	Action
		<ol style="list-style-type: none">1. Notify the Responsible Manager of the permitting actions required, if any, and prepare permit documents or modify the existing permit.2. Notify the Responsible Manager if the source is a <i>Category 1</i> (major) or <i>Category 2</i> (minor) source as determined in HNF-PRO-15335.
		<ol style="list-style-type: none">c. Contact the <u>Radioactive Air POC</u> for assistance.
Responsible Manager	3.	<p>Perform the following in the design of a radioactive emissions source (for construction or modification):</p> <ol style="list-style-type: none">a. Contact the <u>Effluent & Environmental Monitoring POC</u> to obtain a unique identification number for each new airborne radionuclide emission release point, and each associated sampler.b. At a minimum, design the control equipment and practices at radioactively contaminated locations to represent every reasonable effort to maintain radioactive materials in effluents to the ambient air ALARA.c. Include HEPA filtration (<i>abatement technology</i>) in areas of facilities that contain radioactive materials in a dispersible form and in facilities, areas, or containment boundaries that contain unsealed, radioactive material.
<p>NOTE: HEPA-equivalent filters or process controls may be used in lieu of HEPA filtration in certain specialized installations as allowed by an approved NOC. In the absence of an approved NOC, obtain written concurrence of the Responsible Manager.</p> <ol style="list-style-type: none">• Procure and use <i>only</i> HEPA filters designed to remove at least 99.97 percent of test aerosols with a nominal median diameter of 0.3 micron.		
	d.	<p>Design <i>Category 1</i> (major) emission units as follows:</p> <ol style="list-style-type: none">1. Design <i>Category 1</i> (major) emissions units to meet the continuous emissions measurement requirements in accordance with 40 CFR 61, Subpart H, or alternative EPA-approved emissions measurement requirements.2. Design or procure radioactive air emission units, radioactive air ventilation, or emissions measurement equipment to meet the applicable technology standards listed in WAC 246-247-110 (18) (i.e., American Society of

Environmental Protection Processes

Actionee	Step	Action
		Mechanical Engineers [ASME]/American National Standards Institute [ANSI] AG-1, ASME/ANSI N509, ASME/ANSI N510, ASME/ANSI Nuclear Quality Assurance [NQA]-1, and ANSI N13.1) if the unit's <i>potential-to-emit</i> (PTE) exceeds 0.1 mrem/yr <i>total effective dose equivalent</i> (TEDE) to the hypothetical <i>maximally exposed individual</i> (MEI). (Refer to <u>HNF-RD-1819</u> , <i>PHMC Engineering Requirements</i> ; and <u>HNF-PRO-14990</u> , <i>Construction Management</i> .)

NOTE: Potential TEDE to the MEI (mrem per year) - The theoretical *annual* emission of radionuclides (used to calculate the potential MEI dose) are determined by calculating the rate of release of radionuclides from an emission unit based on the actual or potential discharge of the effluent stream that would result if abatement control equipment did not exist, but operations were otherwise normal.

3. Use *best available radionuclide control technology* (BARCT) for *new* construction or *modifications* of Category 1 (major) emission units. (See WAC 246-247-030(6); WAC 246-247-040; WAC 246-247-120.)
4. Request that the EP Program Services Manager develop a quality assurance program adhering to the methods of 40 CFR 61, Appendix A, Method 114; ANSI/ASME NQA-1; EPA QA/R-2; EPA QA/R-5; and WAC 246-247-075. (Refer to HNF-MP-599, *Quality Assurance Program Description*.)
5. Design *emission monitoring* systems for Category 1 (major) emission units to be powered from a source that has the same or equivalent emergency capability as the air mover for the effluent stream being monitored.

NOTE: To ensure equivalent emergency capability, the "In-line" and "Off-line" system specifications for emission monitoring systems for Category 1 (major) emission units indicate these systems should have a stable source of electrical power.

6. Design emissions monitoring equipment required for Category 1 (major) emission units to meet the applicable requirements and guidance provided in ANSI N13.1 and the applicable requirements of DOE/EH-0173T, Chapter 3.0, Section 3.5.8.

NOTE: Without justification that has the concurrence of the EP Director, *shoulds* followed by an asterisk [*] in DOE/EH-173T, Section 3.5.8, are considered *shalls* for the purposes of this procedure.

7. Design Category 1 (major) sources to include continuous emission monitoring with remote alarms. Design the alarm to provide timely warnings. When establishing stack Continuous Air Monitor (CAM) alarm

Environmental Protection Processes

Actionee	Step	Action
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set points, take into consideration, as applicable, Emergency Action Levels defined in emergency preparedness documentation. Define stack CAM alarm set points and their bases in the respective FEMP.

NOTE: The alarms are intended to provide timely warnings when the radionuclide concentration or content of emissions has increased significantly above normal fluctuations in background or normal fluctuations in emissions, requiring corrective actions to prevent the emissions from exceeding applicable limits.

4. If the potential-to-emit is below 0.1 mrem/yr, design or procure radioactive air emission units, radioactive air ventilation, or emissions measurement equipment to meet the applicable technology standards listed in WAC 246-247-110 (18) (i.e., ASME/ANSI AG-1, ASME/ANSI N509, ASME/ANSI N510, ASME/ANSI NQA-1, and ANSI N13.1) only to the extent justified to WDOH by a cost/benefit evaluation.
5. Construct or modify the facility, equipment, or process according to the design, terms and conditions of the approved NOC and any exemptions.
 - a. If the source is a Category 1 (major) emissions unit, calibrate emissions monitoring systems according to the requirements of DOE/EH-0173T, Chapter 3.0, Sections 3.3 and 3.5, before use, and any time the system is subject to maintenance or modification that might affect equipment calibration.
 1. Perform calibration to meet the specifications of the manufacturer or responsible project/operations manager and applicable portions of the ANSI N42.18 standard.

NOTE: Calibration also should consider sampling capabilities, physical and operating limits, and reliability. System calibration (as described in ANSI N42.18) should include devices in the sample train (e.g., flow meter, pressure indicator, volume totalizer, flow alarm switch) necessary for the system to perform its intended function.

- b. If the facility or process is equipped with HEPA filtration, perform an in-place particulate filtration efficiency test of on-line effluent filter systems functioning as abatement technology using FH-approved procedures before initial *startup* at each location and at least annually thereafter.

NOTE: The efficiency test is not required for those systems installed as small, non-testable units with the written concurrence of the Responsible Manager or as allowed by an approved NOC.

Environmental Protection Processes

Actionee	Step	Action
		<ol style="list-style-type: none">1. If the unit is a <i>Category 1 (major) emissions unit</i>, document the HEPA filter test frequency determination and basis in the FEMP or other document.2. Use a DOE-approved test aerosol when efficiency testing HEPA filters (other than those built in place [i.e., sand filters]).3. Test each filter stage required by the emissions filtration and treatment criteria of this section individually.4. Leak test HEPA filters in-place at the operating flow.5. If the leak-testing shows failure, replace the filter with a HEPA or HEPA-equivalent filter having a minimum leakage rate efficiency of 99.95 percent for removal of polydispersed test aerosol with a nominal median diameter of 0.7 micron.6. Annually calibrate or functionally test differential pressure gauges that are installed as part of the final stage of the environmental filtration/abatement system gauges on emission units.
		<ol style="list-style-type: none">6. For radioactive emissions sources requiring an EPA-approved NOC application, make the following notifications:<ol style="list-style-type: none">a. Notify the EPA not more than 60 days nor less than 30 days before the anticipated date of initial startup of the emission unit.b. Notify the EPA of the actual date of initial startup of the emission unit within 15 days after the initial startup.7. Notify WDOH at least 7 calendar days before any planned preoperational tests of new or modified radioactive air emission units that involve emission(s) control, monitoring, or containment systems of the emission unit(s).

NOTE: WDOH may witness or require preoperational tests.

8. Implement the instructions in Section 5.31, Starting Up, Shutting Down, or Performing Scheduled Maintenance on Stationary Air Emissions Sources, as appropriate for the project/facility.

Environmental Protection Processes

Actionee	Step	Action
	9.	Determine stack flow rates after any facility modification that could have significantly altered stack flow rates making quarterly, rather than annual, determinations necessary. Document stack flow rate measurement requirements in the FEMP according to the instructions in HNF-PRO-15334, <i>Effluent and Environmental Monitoring</i> , Section 5.2, <i>Maintaining and Implementing the Effluent and Environmental Monitoring Program</i> , if the facility has a FEMP, or if the modification would create a <i>Category 1 (major)</i> source, and therefore require a FEMP.
	10.	Maintain permitting documentation and records of testing and calibration according to the instructions in <u>Section 7.0, Records</u> .

5.6 Constructing or Modifying Resource Conservation and Recovery Act Treatment, Storage, and/or Disposal Units (Including Adding New Wastes and Changing Permit Text)
 [Basis: HNF-RD-15332, Section 2.6]

NOTE: In accordance with the *Hanford Federal Facility Agreement and Consent Order* (Tri Party Agreement), the Hanford Site consists of a single *Resource Conservation and Recovery Act* (RCRA) facility (referred to as the Hanford Facility), consisting of over 70 treatment, storage, and/or disposal (TSD) units. These TSD units are identified in DOE/RL-88-21, Hanford Facility Dangerous Waste Part A Permit Application (HF Part A Permit Application), maintained by the RCRA Sitewide Permitting (Modifications) POC. Each TSD unit contained in the HF Part A Permit Application is described in a Part A, Form 3, and has one of the following classifications: (1) interim status, (2) final status, or (3) "pending," i.e., awaiting a decision or approval from the Washington State Department of Ecology (Ecology).

Because all of the TSD units cannot be permitted simultaneously, Ecology and the EPA issued an initial *Hanford Facility RCRA Permit* (WA7890008967) (HF RCRA Permit) for less than the entire Hanford Facility. Over time, the HF RCRA Permit has, and will continue to grow, until all TSD units (except procedural closure TSD units) are incorporated. TSD units not yet incorporated into the HF RCRA Permit will be incorporated through a permit modification into one of three parts of the permit: (1) Part III, *Unit-Specific Conditions for Final Status Operations*; (2) Part V, *Unit-Specific Conditions for Units Undergoing Closure*; and (3) Part VI, *Unit-Specific Conditions for Units in Post-Closure*. Incorporation of operating TSD units into the HF RCRA Permit is based on information in the *Hanford Facility Dangerous Waste Permit Application* (HF Part B Permit Application), comprised of a General Information Portion (providing information at the Hanford Facility Level) and a TSD Unit-Specific Portion. Incorporation of non-operating TSD units is based on information in closure plans or post-closure documentation. Permit application and closure documentation, developed by the Operator/Co-operator (DOE-RL/FH), is attached to the HF RCRA Permit; Ecology uses permit conditions to designate which portions of the attached documentation are enforceable.

TSD units already incorporated into the HF RCRA Permit are subject to permit conditions and final status permit modification requirements. TSD units not yet incorporated into the HF RCRA Permit are subject to interim status requirements.

Environmental Protection Processes

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General</u> , when constructing or modifying final or interim status RCRA TSD units, including adding new wastes and changing permit text. <ul style="list-style-type: none"> a. Contact the <u>RCRA Sitewide Permitting (Modifications) POC</u> or estimates based on the scope of the change required. b. Identify a Project/Facility POC (who can provide or coordinate technical input) and direct the individual to contact the RCRA Sitewide Permitting (Modifications) POC. c. Proceed to the following steps, dependent upon the nature of the construction or modification: <ul style="list-style-type: none"> • Step 2: Change to an existing Part A, Form 3. • Step 3: Change to a TSD unit already incorporated into the HF RCRA Permit. • Step 4: Construction of a new TSD unit. • Steps 5-8: Approvals/certifications and recordkeeping. • Step 9: Use of an Independent Qualified Registered Professional Engineer (IQRPE) or independent qualified installation inspector to support design and construction.
	2.	If the proposed change is to a Part A, Form 3, for an interim status or final status TSD unit, and falls within allowable changes identified in WAC 173-303-805(7), contact the <u>RCRA Sitewide Permitting (Modifications) POC</u> to process a Part A, Form 3, revision.
NOTE: Changes to RCRA permit documentation require substantial lead-time for processing. Allow at least 90 days for changes to the HF Part A Permit Application.		
Project/ Facility POC	a.	Provide technical input to support the Part A, Form 3, changes.
RCRA Sitewide Permitting	b.	Prepare a revision to the Part A, Form 3, incorporating the proposed changes according to WAC 173-303-805(7), and submit a draft revision to the Project/Facility POC for review.

Environmental Protection Processes

Actionee	Step	Action
(Modifications) POC		c. Conduct reviews, approvals, and certifications in accordance with <u>Steps 5.6.5 - 5.6.8.</u>
Responsible Manager	3.	If the proposed change is to a TSD unit incorporated into the HF RCRA Permit (i.e., Part III, for operating units; Part V, for units undergoing closure; or Part VI, for units in post-closure) perform the following: <ul style="list-style-type: none"> a. Identify the change in accordance with <u>Figure 4</u> on the EP website. b. Discuss the proposed change with the <u>RCRA Sitewide Permitting (Modifications) POC</u>, as necessary, to properly classify the proposed modification.

NOTE: In some cases, discussions with DOE-RL and Ecology may be necessary to properly classify a proposed modification. Changes to any enforceable permit text attached to the HF RCRA Permit are subject to the permit modification process. The HF RCRA Permit document control process is shown in Figure 5 on the EP website. The RCRA Sitewide Permitting (Modifications) POC can be contacted to answer questions regarding enforceability of text attached to the permit.

- c. Complete a Permit Modification Request form(s).
 - 1. Contact the RCRA Sitewide Permitting (Modifications) POC for assistance.
 - 2. Complete each Permit Modification Request form so that each form addresses no more than one permit condition or section within a chapter of an attachment (unless pre-arranged with the RCRA Sitewide Permitting (Modifications) POC).
 - 3. Develop draft modified text, using redline-strikeout format to identify changes to the current revision of the permit condition or section within a chapter of an attachment, and include the redline/strikeout modified permit text in the Permit Modification Request form.
 - 4. Attach modified permit or attachment text (electronically) in the Hanford Site standard word processing format with the Permit Modification Request form(s) and submit the package to the RCRA Sitewide Permitting (Modifications) POC.
 - 5. Conduct reviews, approvals, and/or certifications in accordance with Steps 5.6.5 - 5.6.8.
- 4. If the project is for the construction of a new TSD unit perform the following:

Environmental Protection Processes

Actionee

Step

Action

- a. Contact the RCRA Sitewide Permitting (Technical) POC for information concerning permitting requirements and assistance in permit application preparation.
- b. Develop permit application documentation consistent with the current style, format, and terminology of the HF Part A Permit Application and Part B Permit Application.
- c. Conduct reviews, approvals, and certifications in accordance with Steps 5.6.5 – 5.6.8.
- d. Follow the process contained in Section 9.0 of the Tri-Part Agreement to address Notice of Deficiency comments from Ecology.

NOTE: Development of RCRA Part B Permit Application documentation for a new TSD unit requires substantial lead-time for processing (up to 2 years). Processing of such documentation is done in accordance with the Tri-Party Agreement, Chapters 6.0 and 9.0. A new TSD unit could be constructed under interim status expansion if allowed by WAC 173-303-805(7). However, it is imperative that such a decision be pursued with the regulators expeditiously, as construction of a new TSD unit cannot start unless the unit is permitted under interim status expansion (via a Part A, Form 3), or has a final status permit.

RCRA
Sitewide
Permitting
(Technical)
POC

5. Review the permit application documentation and provide comments and/or concurrence to the Project/Facility POC.

Responsible
Manager

6. Follow the *RCRA Permit Configuration Document Control Process* (Figure 5 on the EP website) and obtain approvals and/or certifications according to this process.
7. Complete internal approvals and/or co-operator certification(s) for interim status Part A, Form 3 revisions, HF RCRA Permit modifications, and/or new Part B permit application documentation.
 - a. Contact the RCRA Sitewide Permitting (Technical) POC to determine the appropriate certification and approval format and obtain signatures.

NOTE: The RCRA Sitewide Permitting (Technical) POC coordinates and schedules any certifications with the President's office.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none">b. Transmit the FH-approved and/or -certified permit documentation to DOE-RL.c. Ensure DOE-RL transmits a signed copy of the certified permit documentation to Ecology and/or the EPA as appropriate.d. Copy the <i>Environmental Portal</i> on submittals to DOE-RL at Outlook Address: <u>^Correspondence Control-PHMC or Correspondence^Control-PHMC@apimc01.rl.gov</u>.
RCRA Sitewide Permitting (Modifications) POC	8.	Maintain copies of <i>Permit Modification Requests</i> , and permit applications, including background information used to develop permit applications and/or modifications, according to the instructions in <u>Section 7.0, Records</u> .
	9.	Construct or modify the unit according to the approved permit or permit modification. Ensure an IQRPE is involved as follows: <ul style="list-style-type: none">a. If a new dangerous waste tank system or tank system component is to be added, obtain the engineering services of an IQRPE to assess whether the design system meets WAC 173-303-640 for final status tank systems or 40 CFR 265.192 for interim status tank systems.b. If a new containment building is to be added, obtain an IQRPE to certify that the containment building is designed to meet the requirements of 40 CFR 264 (for final status tank systems) or 40 CFR 265.1101(a-c) (for interim status tank systems).

NOTE: The independent, qualified installation inspector or independent, qualified, Registered Professional Engineer is an independent individual consistent with the regulatory provisions for IQRPEs or Independent Qualified Installation Inspector.

1. Contact the RCRA Sitewide Permitting (Technical) POC to confirm if the preferred organization is considered independent for the purposes of the IQRPE provisions.
2. Ensure that the IQRPE or independent qualified installation inspector, or representative, is present onsite during activities as required.

Environmental Protection Processes

5.7 Constructing or Modifying Drinking Water Systems

[Basis: HNF-RD-15332, Section 2.7]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General</u> , when constructing or modifying drinking water systems.
	2.	Contact the Water Purveyor to obtain or modify the appropriate permit.
Water Purveyor	3.	Obtain an operating permit or modify an existing operating permit issued by WDOH to comply with WAC 246-290.
	4.	Maintain copies of permits and documents to show compliance with drinking water requirements and applicable permit terms and conditions according to the instructions in <u>Section 7.0, Records</u> .

5.8 Constructing or Modifying Sanitary Sewer Systems, or Adding or Modifying Discharges to the Columbia River, or Discharges to the Land

[Basis: HNF-RD-15332, Section 2.8]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General</u> , when constructing or modifying sanitary sewer systems, or adding or modifying discharges to the Columbia River, or discharges to the land.

NOTE: See Figure 6, Liquid Effluent Discharge, on the EP website.

Cognizant ECO	2.	Contact the <u>Cognizant ECO</u> for assistance in identifying the appropriate permits, and for assistance in obtaining these permits and approvals.
	a.	Identify appropriate permits or permit modifications, and requirements to support the new or modified discharge. Contact the <u>Domestic Wastewater POC</u> for assistance.
	3.	If a liquid waste stream that potentially contains radionuclides will be discharged to surface water, perform the following: <ul style="list-style-type: none"> a. Design and operate facilities so that tritium sources and releases are considered in the ALARA process.

Environmental Protection Processes

Actionee	Step	Action
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| | b. | Determine the derived concentration of radionuclides in the liquid waste stream and compare them to the DOE <i>derived concentration guide</i> (DCG) in DOE Order 5400.5. |
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NOTE: The DCG for liquid waste streams containing more than one type of radionuclide is the sum of the fractional DCG values.

The dose conversion factors and derived concentrations needed to make dose evaluations are provided in DOE Order 5400.5, Chapter III, and three supplemental documents:

- EPA-520/1-88-020, Federal Guidance Report No. 11, *Limiting Values of Radionuclide Intake and Air Concentration Factors for Inhalation, Submersion, and Ingestion*.
- DOE/EH-0071, *Internal Dose Conversion Factors for Calculation of Dose to the Public*.
- DOE/EH-0070, *External Dose-Rate Conversion Factors for Calculation of Dose to the Public*.

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| | c. | If the discharge is at a concentration greater than the DCG Level, determine the best available technology (BAT) for treatment in accordance with DOE Order 5400.5, Chapter II.3a.(1)(a) and (b). |
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NOTE: For liquid wastes containing radionuclides which are discharged to surface water, the BAT is the prescribed level of treatment if the surface waters otherwise would contain, at the point of discharge and prior to dilution, radioactive material at annual average concentrations greater than the DCG values in liquids given in DOE Order 5400.5, Chapter III.

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| | d. | If the discharge is at a concentration less than the DCG, the BAT process for liquid radioactive wastes is not required; however, the ALARA provisions are applicable. |
| | e. | If the radioactive material in the liquid process waste stream is in the form of settleable solids, these may be released to natural waterways if the concentration of radioactive material in the solids does not exceed 5 pCi (0.2 Bq) per gram above background level, of settleable solids for alpha-emitting radionuclides, or 50 pCi (2 Bq) per gram above background level, of settleable solids for betagamma-emitting radionuclides. |
| 4. | | Before making a new industrial discharge or modifying an existing discharge to the Columbia River, obtain a National Pollutant Discharge Elimination System (NPDES) permit or modify the existing permit. Contact the <u>Clean Water Act-NPDES Water POC</u> for assistance. |

Environmental Protection Processes

Actionee	Step	Action
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5. If the project includes the construction of a new, or modification to an existing, *large onsite sewage system (LOSS)* with a design capacity of up to 14,500 gallons per day, perform the following:

NOTE: Even though WAC 246-272-08001 only applies to LOSS (capacity of 3,500 gallons to 14,500 gallons), all systems onsite are managed under the LOSS requirements since the local health district does not have jurisdiction on the Hanford Site.

The Hanford site has a single LOSS operating permit that includes all permitted systems. If a new system is added, the operating permit is modified to include the new system.

- a. Prepare and submit the following to WDOH for approval before installing a LOSS (see WAC 246-272-08001 for details):
 - A preliminary report, stamped and signed by an engineer, including:
 - Complete plans and specifications of the LOSS.
 - Schedule of inspections to confirm the installation conforms to the plans and specifications.
 - Draft operation and maintenance manual, describing the LOSS and outlining routine maintenance procedures for proper operation of the system.
 - Required fees; and other information as required by WDOH.
- b. If modifying or expanding a LOSS, submit all documents and fees specified above, unless WDOH waives submission of some elements as unnecessary, and obtain approval from WDOH.
- c. Coordinate the LOSS permit modification and approval with the Responsible Manager prior to submittal to WDOH.
- d. If a liquid waste stream that potentially contains radionuclides will be discharged to the sanitary sewer, perform the following:
 1. Implement the DOE Order 5400.5 BAT selection process if liquid wastes contain radionuclides at concentrations, averaged monthly, that would otherwise be greater than five times the DCG values for liquids given in DOE Order 5400.5, Chapter III, at the point of discharge.
 2. Control the discharge so that long-term buildup of radionuclides in solids

Environmental Protection Processes

Actionee	Step	Action
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will not present a handling and disposal problem at the sewage disposal plant.

NOTE: Liquid wastes containing concentrations or quantities of radioactive materials that, when averaged monthly, are greater than five times the DCG values for liquids, averaged monthly, may be discharged into a chemical or sanitary sewerage system (e.g., systems with drain fields excepted) if the system is owned by the Federal Government. However, ALARA process considerations are required.

Responsible
Manager

- e. Perform the following during installation of the LOSS:
 - Use a qualified installer.
 - Comply with all conditions in the WDOH construction approval, including any extensions.
- f. Before a new LOSS is used, have an engineer stamp, sign, and submit a LOSS construction report to WDOH within 60 days following the completion of construction of the LOSS including:
 - A completed form stating the LOSS was constructed in accordance with WDOH's approved plans and specifications, and an "as built" or "record" drawing.
 - An operation and maintenance manual developed by an engineer for the installed LOSS.
6. For onsite sewage systems with a design capacity of >14,500 gallons per day, comply with the applicable Washington State Department of Ecology (Ecology) requirements for wastewater treatment facilities identified in WAC 173-216 and WAC 173-240.
7. Do *not* allow strong bases, acids, or chlorinated organic solvents to be introduced into any onsite sewage system for any purpose.
8. Before making a new discharge to the Richland sewage system, or before making changes to an existing discharge to the Richland sewage system, obtain approval from the City of Richland and comply with applicable City Ordinance # 7-96. Contact the Domestic Wastewater POC for assistance.
9. Before making new wastewater discharges to the land surface, determine if a *State Waste Discharge Permit* is required or if the discharge requires permitting as a new

Environmental Protection Processes

Actionee	Step	Action
		Class V injection well. Contact the <u>State Wastewater Permitting POC</u> for assistance.
	a.	If permitting is required for a new wastewater discharge, address the requirements at least 60 days in advance of the planned discharge through a one-time/limited duration permit application.
	b.	If the discharge is to a new Class V injection well, register the new well before use on Ecology's <u>UIC Program Registration form</u> (Form # ECY 040-47) located through the <u>Ecology UIC website</u> .
	1.	Discharge only the following to Class V injection wells: <ul style="list-style-type: none">• Uncontaminated storm water.• Heat pump return water.• Aquifer storage and recovery water.• Water undergoing remediation via pump-and-treat processed at <i>leaking</i> underground storage tank sites.• Other fluids deemed appropriate by Ecology.
		NOTE: Discharges "deemed appropriate by Ecology" are determined largely based on WAC 173-200, <i>Ground Water Quality Standards for Ground Waters of the State of Washington</i> .
	2.	Contact the <u>UIC POC</u> for assistance or to determine if Ecology may allow other discharges.
	c.	Develop an individual <i>State Waste Discharge Permit</i> application for submittal to Ecology for wastewater discharges that require permitting under WAC 173-216. <ul style="list-style-type: none">1. Contact the <u>State Wastewater Permitting POC</u> for assistance in development of an individual permit.2. Develop and submit permit applications and modifications to the State Wastewater Permitting POC for review and approval before submittal to Ecology.

NOTE: Only those wastewater discharges identified in Section 10 of DOE/RL-97-67, Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 4508, ST

Environmental Protection Processes

Actionee	Step	Action
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4509, and ST 4510, are exempt from the State Waste Discharge Permit Program.

- d. Contact the UIC POC to determine if notification is required for changes to existing injection wells.

10. Do not discharge liquids, even though uncontaminated, into inactive radionuclide-contaminated release areas to prevent the further spread of radionuclides previously deposited.

11. Copy the *Environmental Portal* on submittals to DOE, Richland Operations Office at Outlook Address: ^Correspondence Control-PHMC or Correspondence Control-PHMC@apimc01.rl.gov.

12. Maintain project- and operations-specific documentation necessary to show compliance with wastewater requirements, applicable permit terms and conditions, and UIC Program requirements according to the instructions in Section 7.0, Records.

- EP Program Services Manager 13. Maintain company-wide and sitewide documentation necessary to show compliance with wastewater requirements and applicable permit terms and conditions according to the instructions in Section 7.0.

5.9 Constructing or Modifying Storage Tanks or Container Storage Areas That Store Oil

[Basis: HNF-RD-15332, Section 2.9]

NOTE: This section applies to the storage or use of *oil* with an aggregate storage of >1,320 gallons (in any *container* ≥ 55 gallons in capacity, including tanks not regulated under 40 CFR 280) that have the potential to impact waters of the United States.

Actionee	Step	Action
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- Responsible Manager 1. Use the following instructions in addition to those found in Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General, when constructing or *modifying* storage tanks or container storage areas that store oil.

2. If the project stores or uses *oil* with an aggregate storage capacity of >1,320 gallons (in any *container* ≥ 55 gallons in capacity, including tanks not regulated under 40 CFR 280) contact the Cognizant ECO to identify Spill Prevention Control and Countermeasures (SPCC) requirements for the project.

- Cognizant ECO 3. Determine the specific SPCC requirements that apply.

Environmental Protection Processes

Actionee	Step	Action
	a.	Identify the construction and installation requirements from 40 CFR 112 and provide them to the Responsible Manager.
	b.	Develop and maintain a new SPCC Plan, or integrate the new oil storage into an existing SPCC Plan to comply with the requirement of 40 CFR 112.
	4.	If a new SPCC Plan is required, and the facility includes the storage of oil in underground storage tanks regulated under 40 CFR 280, note the location of those tanks on a map in the SPCC Plan.
	5.	Have a Registered Professional Engineer review and certify that the plan meets the requirements for SPCC Plan preparation and implementation.
	6.	Train oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.
	7.	Maintain a copy of the SPCC Plan at the facility.

5.10 Installing Regulated Underground Storage Tanks

[Basis: HNF-RD-15332, Section 2.10]

NOTE: This section does *not* apply to the following underground storage tank (UST) systems:

- Tanks with less than 10% of their volume below the ground.
- UST system holding hazardous wastes subject to Subtitle C of the *Federal Solid Waste Disposal Act*, or a mixture of such hazardous waste and other regulated substances.
- Wastewater treatment tank systems that are part of a wastewater treatment facility regulated under Section 402 or 307(b) of the *Clean Water Act*.
- Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.
- UST systems whose capacity is 110 gallons or less.
- UST systems that have never contained more than a de minimis concentration of *regulated substances*.
- Emergency spill or overflow containment UST systems that are expeditiously emptied after use.

Environmental Protection Processes

- UST systems used for storing heating oil for consumptive use on the premises where stored; except that such systems which store in excess of 1,100 gallons are subject to the release reporting requirements of WAC 173-360-372.
- Septic tanks.
- Surface impoundments, pits, ponds, or lagoons.
- Storm water or wastewater collection systems.
- Flow-through process tanks.
- Storage tanks situated in an underground area (such as a basement, cellar, vault, or tunnel) if the storage tanks are situated upon or above the surface of the floor.

The following new USTs only are required to meet tank permits and delivery requirements (WAC 173-360-130), notification requirements (WAC 173-360-200), and the performance standards of WAC 173-360-300, *Performance Standards for Deferred UST Systems*:

- Wastewater treatment tank systems not regulated under section 307(b) or 402 of the *Clean Water Act*.
- UST systems containing radioactive material that are regulated under the *Atomic Energy Act* (42 USC 2011).
- UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR 50, Appendix A.
- UST systems with field-constructed tanks.

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General</u> , when installing regulated USTs.
	2.	Design and install new UST systems to meet the following requirements: <ul style="list-style-type: none"> • The performance standards contained in WAC 173-360-305. • Leak detection requirements of WAC 173-360-330 through WAC 173-360-355 at the time of installation. • Constructed or lined with materials compatible with the stored substance(s) per WAC 173-360-323.
Cognizant ECO	3.	At least 30 days, and not more than 90 days, before installing a new UST system, provide notification as specified in WAC 173-360-200(1).

Environmental Protection Processes

Actionee	Step	Action
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NOTE: The *UST Notification form* may be obtained from the Washington State Department of Ecology (Ecology), Toxics Cleanup Program, P.O. Box 47655, Olympia, WA 98504-7655, by requesting "Tank Owner/Operator Information Documents (New Owner Package)" or by accessing the Ecology Internet site.

4. Use an UST Supervisor who is certified in tank system installation to install the tank.
5. Within 30 days after bringing the new UST into use, apply for an UST permit using an *UST Notification form*, as specified in WAC 173-360-200(2). Submit the completed form with payment of the applicable annual fee, as specified in WAC 173-360-190, to Ecology.
 - a. Ensure the *UST Notification form* is signed by a Certified UST Supervisor.
 - b. Copy the *Environmental Portal* on UST notifications submitted to the U.S. Department of Energy, Richland Operations Office at Outlook Address: ^Correspondence Control-PHMC or Correspondence Control-PHMC@apimc01.rl.gov.
6. Display the valid tank permit on the tank, the dispensing or measuring device, or in the office of the facility where the tank is located, unless otherwise authorized in writing by Ecology.
7. If the new UST is situated at a location other than the Central Plateau, and has a SPCC Plan, contact the UST POC to determine if the new UST tank must be identified on a map.

Responsible
Manager

8. Maintain UST system records according to the instructions in Section 7.0, Records, in compliance with applicable requirements of WAC 173-360-330 through WAC-173-360-355.

5.11 Relocating Portable Criteria Pollutant Air Emission Sources, or Bringing Portable or Stationary Criteria Air Pollutant Emission Sources Onto the Site

[Basis: HNF-RD-15332, Section 2.11]

Actionee	Step	Action
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Responsible
Manager

1. Use the following instructions in addition to those found in Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General, when relocating portable criteria pollutant air emission sources, or when bringing portable or stationary criteria air

Project Hanford Management System

Environmental Protection Processes

HNF-PRO-15333, Rev. 0

Published: August 8, 2003

Page 39 of 231

Actionee	Step	Action
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pollutant emission sources onto the Hanford Site.

NOTE: Portable criteria air emission sources located temporarily (less than 1 year) at particular sites are allowed to operate at the temporary location without filing a *Notice of Construction* (NOC) application.

2. At least 30 days before starting the operation of a temporary criteria air emission source, notify the Washington State Department of Ecology (Ecology) of the intent to operate the source at the new location.
 - a. Contact the Non-Radioactive Air POC for assistance.
 - b. Provide sufficient information to enable Ecology to determine that the operation will comply with the emission standards for a *new source*, and will not cause a violation of applicable ambient air quality standards.
 - c. Maintain a copy of the notice according to the instructions in Section 7.0, Records.

Cognizant
ECO

NOTE: The permission to operate a portable source is limited to a period of 1 year or less. Ecology may set specific conditions for operation during that period.

3. Operate the source to comply with applicable emission standards. (See Section 5.13, Operating Facilities, Equipment, or Processes That Emit Criteria/Toxic Air Pollutants, for general requirements for all emission units.)
4. Provide quarterly updates for the *Portable and Temporary Radioactive Air Emissions Units (PTRAEU) Report* according to the NOC.

5.12 Operating Facilities, Equipment, or Processes – General

[Basis: HNF-RD-15332, Section 2.12]

Actionee	Step	Action
Responsible Manager	1.	Operate facilities, equipment, or processes in accordance with applicable environmental requirements, the conditions of federal, state, and local permits, other agreements, and applicable DOE Orders.
	2.	If the facility could discharge storm water to the Columbia River, implement the <i>Storm Water Pollution Prevention Plan</i> (SWPPP).

NOTE: The SWPPP only applies to discharges to the Columbia River. Other storm water is covered

NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

Actionee	Step	Action
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under State Waste Discharge Permit ST 4510 and the implementing *Pollution Prevention and Best Management Practices Plan*.

3. If the facility manages radioactive waste, perform the following:
 - a. Perform operations so they do not affect public drinking water supply systems where persons consuming the water could receive an *effective dose equivalent* (EDE) greater than the Washington State Department of Ecology primary radiological drinking water criteria.
 - b. Implement DOE O 435.1 in accordance with the current revision of DOE/RL-2000-25, *Richland Operations Office Implementation Plan for DOE Order 435.1*.
 - c. Include ALARA process considerations in the planning and execution of work.
4. Prepare, maintain, and implement for a facility a Facility Effluent Monitoring Plan according to the instructions in HNF-PRO-15334, *Effluent and Environmental Monitoring*, Section 5.2, *Preparing, Maintaining, and Implementing a Facility Effluent Monitoring Plan*, if any of the following occurs.
 - An estimated dose to the maximally exposed individual resulting from the *potential-to-emit* radionuclides that exceeds 0.1 millirem (mrem) per year EDE from any one emission unit (e.g., discharge point).
 - Any regulated material discharged from the facility has the potential to exceed a Comprehensive Environmental Response, Compensation and Liability Act reportable quantity or a permitted quantity.
 - A liquid effluent discharged to the Columbia River that is regulated by the *National Pollutant Discharge Elimination System* and contains radionuclides that would cause any person consuming that effluent to receive an EDE greater than 4.0 mrem per year.
5. Ensure effluent and environmental monitoring is conducted in compliance with environmental requirements, the conditions of federal, state, and local permits, other agreements, and DOE Orders, as applicable, at the following:
 - Operational and non-operational facilities.
 - Radioactive or nonradioactive and hazardous or nonhazardous waste treatment, storage, and disposal facilities.
 - Any facility that manages, uses, or releases any *regulated substance*.

Environmental Protection Processes

Actionee	Step	Action
EP Monitoring & Reporting Manager	6.	Request utilities required to operate the near-facility monitoring equipment.
	7.	Operate near-facility monitoring.
Responsible Manager	8.	Report <i>spills, releases</i> , and potential non-compliances to the <i>Occurrence Notification Center</i> (ONC) within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances.</u>
	9.	Contact the <u>Regulatory Inspections POC</u> in the event of a regulatory agency inspection, or notification of an impending regulatory agency inspection. See <u>Section 5.26, Responding to Regulatory Agency Inspections.</u>

5.13 Operating Facilities, Equipment, or Processes That Emit Criteria/Toxic Air Pollutants

[Basis: HNF-RD-15332, Section 2.13]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes – General.</u> Use the instructions in <u>Section 5.14, Operating Stationary Facilities and Equipment That Potentially Emit Radionuclides to the Ambient Air,</u> in addition to the instructions in this section if the source potentially emits radionuclide air pollutants.
	2.	Operate sources of criteria/toxic air emissions and emission units as follows: <ul style="list-style-type: none"> Adhere to requirements in the <i>Hanford Site Air Operating Permit</i> (AOP). Adhere to requirements in <i>Notices of Construction.</i> Use reasonably available control technology for the source or source category. Do <i>not</i> release airborne contaminants causing more than 20 percent opacity for more than 3 minutes per hour. Do <i>not</i> emit particulate matter in a manner that allows the particulate matter to be deposited (i.e., fallout) beyond the Hanford Site boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of offsite property. Reduce odors to a reasonable minimum by using recognized good practices and procedures so the odors do not unreasonably interfere with offsite property use or enjoyment. Do <i>not</i> emit any air pollutant that causes detriment to the health, safety, or welfare of any offsite person or causes offsite property or business damage.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> Do not emit a gas containing sulfur dioxide in excess of 1,000 parts per million (ppm) of sulfur dioxide on a dry basis, corrected to 7 percent oxygen for combustion sources, based on the average of any period of 60 consecutive minutes.
	3.	Take reasonable precautions to prevent the emission of air pollutants resulting from <i>fugitive emissions</i> . Contact the <u>Non-Radioactive Air POC</u> for guidance on reasonable precautions.
	4.	Do not use any means that <i>conceals</i> or masks an emission of an air contaminant that would violate any federal, state, or local regulation or standard.
	5.	If operating combustion or incineration units, do not emit particulate matter in excess of 0.23 gram per dry cubic meter at standard conditions (0.10 grain per dry standard cubic foot).
	6.	If operating a stationary fossil fuel-fired boiler that commenced construction, modification, or reconstruction after June 9, 1989, and that has a heat input capacity from fuels combusted in a boiler of greater than 2.9 MW (10 million Btu per hour) but less than 29 MW (100 million Btu per hour), implement applicable performance standards, tests, emission monitoring, and reporting/recordkeeping requirements in 40 CFR 60, Subpart Dc.
Non-Radioactive Air POC	7.	Request information, and prepare and submit the <i>Semi-Annual and Annual Hanford Site AOP Reports</i> according to the instructions in HNF-PRO-15335, <i>Environmental Permitting and Documentation Preparation</i> .
Responsible Manager	8.	Prepare and submit to the <u>Non-Radioactive Air POC</u> the <i>Semi-Annual and Annual Hanford Site AOP Report</i> information per this POC's request.
Non-Radioactive Air POC	9.	Request information to support the <i>Annual Criteria/Toxic Air Emissions Inventory Report</i> for the preceding calendar year's criteria/toxics <i>point source</i> emissions and prepare the <i>Annual Air Emissions Inventory</i> according to the instructions in HNF-PRO-15335.
Responsible Manager	10.	Prepare and submit to the Non-Radioactive Air POC <i>Annual Criteria/Toxic Air Emissions Inventory Report</i> information per this POC's request.

Environmental Protection Processes

5.14 Operating Stationary Facilities and Equipment That Potentially Emit Radionuclides to the Ambient Air

[Basis: HNF-RD-15332, Section 2.14]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes – General</u> . Use the instructions in <u>Section 5.13, Operating Facilities, Equipment, or Processes That Emit Criteria/Toxic Air Pollutants</u> , in addition to the instructions in this section if the source emits criteria/toxic pollutants in addition to radionuclides.
	2.	Ensure that each airborne radionuclide emission release point has a unique identification number and each associated sampler has a unique number.
	3.	Operate sources within emissions levels established in <i>Notices of Construction</i> (NOCs).

NOTE: Operating sources within individual NOC emissions levels results in meeting established emission levels so the combined discharge of radionuclides for all facilities, in combination with all other DOE facilities on the Hanford Site, does not exceed amounts that would cause a *total effective dose equivalent* (TEDE) of 10 millirem (mrem) per year to any member of the public during any 12-month period.

Doses due to radon-220, radon-222, and their respective decay products are excluded from this limit. Doses due to radon or other naturally occurring airborne radionuclides are exempt from the WDOH specified limit unless the concentrations or emission rates have been enhanced by industrial processes.

Emissions of radionuclides due to emergency conditions or resulting from *startup, shutdown, maintenance activities, or process upsets*, are subject to these requirements.

Environmental Protection determines compliance with this standard by calculating the dose to members of the public at the point of maximum *annual* air concentration in any unrestricted area where any member of the public may be (according to WAC 173-480-070).

4. Keep radioactive air emissions to the environment ALARA. At a minimum, take every reasonable effort to operate control equipment and practices at radioactively contaminated locations to maintain radioactive materials in effluents to unrestricted areas ALARA.

NOTE: Doses due to process-related or enhanced sources of radon-220, radon-222 (e.g., from uranium, plutonium, and/or transuranic radionuclide production), and their respective decay products are subject to DOE requirements for ALARA control.

Environmental Protection Processes

Actionee	Step	Action
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5. Operate existing emission units and *nonsignificant modifications* using As Low As Reasonably Achievable Control Technology (ALARACT).

NOTE: Existing *Category 1 (major) emission units* that have no previous WDOH approval of the air ventilation or emissions measurement equipment in question are allowed to demonstrate compliance with ALARACT technology standards on a case-by-case basis, to ensure compliance with the substantive standard. WDOH may adjust this demonstration procedure on a case-by-case basis to ensure compliance with the substantive standard.

6. Be prepared to demonstrate to WDOH the reliability and accuracy of applicable radioactive air emissions monitoring data.

NOTE: WDOH may require the operator of any emission unit to conduct stack sampling, ambient air monitoring, or other testing as necessary to demonstrate compliance with the standards in WAC 246-247-040.

7. Determine the flow rate of each point of powered ventilation flow of radioactive air emissions (stack or vent) *annually*, unless experience has shown more frequent determinations to be necessary (i.e., determine stack flow rates quarterly for stacks with a history of flow rates that vary by >20%).
 - a. Follow good engineering practice when determining flow rates of *Category 2 (minor) emission units* with powered ventilation flow.
 - b. For emission units that meet the criteria for continuous emissions measurement (i.e., *Category 1 [major]*), determine stack flow rates in accordance with 40 CFR 60, Appendix A, Methods 1 and 2, or another method (e.g., stack fan rate), as documented and approved by the EPA Administrator or as specifically identified under an approval order for the source.
 - c. Include stack flow rate measurement requirements in Facility Effluent Monitoring Plans according to the instructions in HNF-PRO-15334, *Effluent and Environmental Monitoring, Section 5.2, Maintaining and Implementing the Effluent and Environmental Monitoring Program*.
8. Operate *Category 1 (major) emission units* as follows:
 - a. Operate continuous *emissions monitoring* systems on *Category 1 (major) emission units* according to the instructions in HNF-PRO-15334, Section 5.8, *Operating Category 1 (Major) Radionuclide Air Emission Monitors*.
 - b. Operate emission *measurement* sampling systems according to the instructions

Environmental Protection Processes

Actionee	Step	Action
		in HNF-PRO-15334, Section 5.9, <i>Performing Radionuclide Air Emission Measurements at Category 1 (Major) Emission Units</i> .
	c.	Inspect Category 1 (major) emission measurement sampling systems using the instructions in HNF-PRO-15334, Section 5.15, <i>Inspecting Category 1 (Major) and 2 (Minor) Sampling/Monitoring Systems on Facilities and Equipment That Emit Radionuclides</i> .
	d.	If required continuous emissions monitoring is lost and cannot be restored within 72 hours, discontinue operations that have the potential to contribute radionuclide air emissions, provided that safe operations can be maintained.
	9.	Operate <i>Category 2 (minor)</i> emission units as follows:
	a.	Perform <i>periodic confirmatory measurements</i> (PCM) (to verify low emissions) according to the instructions in HNF-PRO-15334, Section 5.10, <i>Performing Radionuclide Air Emission Measurements at Category 2 (Minor) Emission Units</i> .
	b.	Inspect Category 2 (minor) emissions measurement sampling systems using the instructions in HNF-PRO-15334, Section 5.15, <i>Inspecting Category 1 (Major) and 2 (Minor) Sampling/Monitoring Systems on Facilities and Equipment That Emit Radionuclides</i> .
	10.	Ensure areas of facilities that contain radioactive materials in a dispersible form and facilities, areas, or containment boundaries that contain unsealed, radioactive material are operated using HEPA filtration (<i>abatement technology</i>).
	NOTE: HEPA-equivalent filters or process controls may be used in lieu of HEPA filtration in certain specialized installations as allowed by an approved NOC. In the absence of an approved NOC, written concurrence of the Responsible Manager is obtained.	
	11.	Maintain and test on-line effluent filter systems functioning as abatement technology according to the instructions in <u>Section 5.30</u> , <i>Maintaining and Testing High Efficiency Particulate Air Filters</i> .
	NOTE: This efficiency test is not required for those systems installed as small, non-testable units with the written concurrence of the Responsible Manager or covered by an approved NOC.	
	12.	For each stack or vent associated with radioactive emissions, maintain and implement data evaluation procedure(s) to monitor, evaluate, and trend data from

Environmental Protection Processes

Actionee	Step	Action
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primary indication device(s) that include the following:

- Method used to examine past and present data,
- Frequency of examination,
- Documentation of examinations, *and*
- Action levels.

NOTE: Trending methods can include review of graphs, plots, logbooks, log sheets, strip charts, work packages, etc. Trending helps assure abatement and effluent measurement equipment is operating as designed and assures response to changing conditions that may indicate exceedance of an environmental design or performance standard. WDOH inspectors may call for demonstration of how each trending method provides such assurance. Statistical evaluations or statistical trending are not required.

Techniques used to support HNF-PRO-4294, Performance Indicator Process, may be applicable. The HNF-PRO-4294 POC may be contacted for assistance in the application of these techniques.

- a. Determine which primary indication devices support data evaluations.
 1. Consider calibrated or field-tested indication devices associated with the final stage of environmental abatement and/or the emissions measurement system first for supplying the primary indication devices data.

NOTE: For comparatively simple abatement systems (e.g., a HEPA filter), a single indication device may be sufficient.

2. Examine stacks, vents, or other emission units without indication devices or without calibrated or field tested indicator devices using available periodic and quantitative information (e.g., filter efficiency test data, flow data, emissions sampling data, or other system performance data).
- b. Maintain trending data from *primary indication devices* according to the instructions in Section 7.0, Records.
13. Report any of the following *conditions* to the Occurrence Notification Center (ONC) within 30 minutes according to the instructions in Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances:
 - Any unplanned *shutdown*, or any *transient or abnormal condition*, or other change in facility operations which, if allowed to persist, would result in

Environmental Protection Processes

Actionee	Step	Action
		emissions of radioactive material in excess of applicable standards or license requirements (see the <u>24-hour notification decision tree flow chart</u> for determining notification to the ONC).
		<ul style="list-style-type: none">Any deviations from radioactive air emission approval conditions (including those attributable to upset conditions as defined in the <i>Hanford Site AOP</i>; the probable cause of such deviations; and any corrective actions or preventative measures taken.Any stack ventilation or sampling equipment that is discovered to be delinquent regarding a scheduled periodic calibration or non-compliant. For example:<ul style="list-style-type: none">Found to be delinquent regarding a scheduled periodic aerosol test for HEPA filters.Found to be delinquent regarding a scheduled periodic test or calibration of differential pressure (DP) gauges installed as part of the final stage of the environmental filtration/abatement system.Failure to correctly operate required air emissions measurement equipment.
EP Monitoring & Reporting Manager	14.	Request annual NESHAPs emissions information for compilation into the <i>Annual NESHAPs Report</i> . <ul style="list-style-type: none">Identify the format and schedule for submission of information.Specify that the information account for emissions during any period of radioactively contaminated ventilation system startup, shutdown, malfunctions, or any other change that would affect required measurements of airborne emissions of radioactive material to the environment.Specify that in addition to the information required by 40 CFR 61.94, provide the information includes:<ul style="list-style-type: none">Results of emissions measurements for those emission units subject only to PCM.Annual average emission unit gas temperature if applicable.Annual average emission unit flow rate and total volume of air released during the calendar year.

Environmental Protection Processes

Actionee	Step	Action
Responsible Manager	15.	Submit annual NESHAPs emissions information as requested by EP Monitoring & Reporting according to the prescribed format and schedule. Contact the EP Monitoring & Reporting POC for assistance. Maintain a copy of the project/facility-specific <i>Annual NESHAPs Report</i> input according to the instructions in <u>Section 7.0, Records</u> .
EP Monitoring & Reporting Manager	16.	Annually, prepare and submit by June 30th to DOE-Headquarters, EPA Region 10, and WDOH the <i>Annual NESHAPs Report</i> to comply with the requirements under 40 CFR 61, Subpart H, and WAC 246-247-080. Work interactively with the Responsible Managers for each affected project to complete the required annual report.
	17.	Maintain a copy of the <i>Annual NESHAPs Report</i> according to the instructions in <u>Section 7.0, Records</u> .

5.15 Operating Regulated Underground Storage Tanks

[Basis: HNF-RD-15332, Section 2.15]

NOTE: This section does not apply to the following underground storage tank (UST) systems:

- Tanks with less than 10% of their volume below the ground.
- UST systems holding hazardous wastes subject to Subtitle C of the *Federal Solid Waste Disposal Act*, or a mixture of such hazardous wastes and other regulated substances.
- Wastewater treatment tank systems that are part of a wastewater treatment facility regulated under Section 402 or 307(b) of the *Clean Water Act*.
- Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.
- UST systems whose capacity is 110 gallons or less.
- UST systems that have never contained more than a de minimis concentration of *regulated substances*.
- Emergency spill or overflow containment UST systems that are expeditiously emptied after use.
- UST systems used for storing heating oil for consumptive use on the premises where stored; except that such systems which store in excess of 1,100 gallons are subject to the release reporting requirements of WAC 173-360-372.
- Septic tanks.
- Surface impoundments, pits, ponds, or lagoons.

Environmental Protection Processes

- Storm water or wastewater collection systems.
- Flow-through process tanks.
- Storage tanks situated in an underground area (such as a basement, cellar, vault, or tunnel) if the storage tanks are situated upon or above the surface of the floor.

The following UST systems only are required to meet the tank permits and delivery requirements (WAC 173-360-130), annual tank fees (WAC 173-360-190), and reporting of confirmed releases requirements (WAC 173-360-372).

- Wastewater treatment tank systems not regulated under section 307(b) or 402 of the *Clean Water Act*.
- UST systems containing radioactive material that are regulated under the *Atomic Energy Act* (42 USC 2011).
- UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR 50, Appendix A.
- UST systems with field-constructed tanks.

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes – General</u> , when operating regulated underground storage tanks.
	2.	Display the valid tank permit on the tank, the dispensing or measuring device, or in the office of the facility where the tank is located, unless otherwise authorized in writing by the Washington State Department of Ecology (Ecology).
<p>NOTE: Each year Ecology will request owners and operators of reported UST systems to certify compliance with the UST requirements. UST systems in Ecology's notification data base when this certification is requested will receive permits by July 1 of each year if adequate documentation of compliance, as specified by Ecology, is submitted to them and applicable fees are paid.</p>		
	3.	Implement release detection methods for UST systems to meet the performance requirements of: <ul style="list-style-type: none">• WAC 173-360-335 – Petroleum UST systems.• WAC 173-360-340 – Hazardous substance UST systems.• WAC 173-360-345 – Methods of release detection for tanks.
	a.	Contact the <u>UST POC</u> for assistance in determining appropriate UST system

Environmental Protection Processes

Actionee *Step*

Action

release detection methods and frequencies.

4. Implement release detection methods for piping to meet the performance requirements of WAC 173-360-350.
5. Operate, maintain, and inspect corrosion protection systems on UST systems in accordance with the requirements of WAC 173-360-320.
6. Perform the following when transferring material into an UST:
 - a. Check the available capacity in each UST before transferring material to it.
 - b. Constantly monitor the available capacity in the UST during the transfer operation to prevent overfilling.
7. Report *spills or release*, overfills, and unusual operating conditions to the *Occurrence Notification Center (ONC)* within 30 minutes according to the instructions in *Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances*. If a confirmed release occurs, within 24 hours of having knowledge of the release, lock the fill pipe and remove from display the permit for the tank from which the release has occurred.
8. Maintain the following information at an UST site and immediately available for inspection; or at a readily available alternative site to be provided for inspection to Ecology upon request.
 - Corrosion protection system inspection records:
 - Results of the last three inspections required in WAC 173-360-320(3); *and*
 - Results of testing from the last two inspections required in WAC 173-360-320(2).
 - Documentation of operation of corrosion protection equipment in accordance with WAC 173-360-320.
 - Documentation of UST system repairs in accordance with WAC 173-360-325(7).
 - Recent compliance with release detection requirements in accordance with WAC 173-360-355.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> • Corrective action records in accordance with WAC 173-340.
	9.	Maintain written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer for 5 years or for another reasonable period of time determined by Ecology, from the date of installation.
	10.	Maintain UST system records according to the instructions in <u>Section 7.0, Records</u> , in compliance with applicable requirements of WAC 173-360-330 through WAC-173-360-355.

5.16 Operating Onsite Sewage Systems

[Basis: HNF-RD-15332, Section 2.16]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes – General</u> , when operating onsite sewage systems.
	2.	Operate onsite sewage systems with a design capacity >14,500 gallons in compliance with WAC 173-216 and WAC 173-240.
	3.	Operate onsite sewage systems with a design capacity <14,500 gallons in compliance with WAC 246-272.
	4.	Do <i>not</i> allow strong bases, acids, or chlorinated organic solvents to be introduced into any onsite sewage system for any purpose.
	5.	Operate <i>large onsite sewage systems</i> (LOSS) in accordance with the requirements of the <i>LOSS Operating Permit No. HAN099</i> .
		<ul style="list-style-type: none"> a. Retain an approved management entity for operation and maintenance of the LOSS. b. Annually prepare and submit a report to the WDOH demonstrating that a LOSS is operated, maintained, and monitored in accordance with WAC 246-272 and the approved operation and maintenance manual to renew a LOSS operating permit.
	1.	Submit the operation and maintenance (O&M) records for the preceding year for each individual system to the <u>Domestic Wastewater POC</u> at least 90

Environmental Protection Processes

Actionee	Step	Action
		days prior to expiration of the <i>Hanford Site LOSS Permit</i> for review and approval before transmittal to WDOH.
Domestic Wastewater POC	2.	Review and approve the LOSS O&M report and return it to the Responsible Manager.
	6.	Compile O&M records into a single report for the Hanford Site and submit the report to DOE-RL for transmittal to WDOH. Copy the <i>Environmental Portal</i> on submittals to DOE-RL at Outlook Address: <u>Correspondence Control-PHMC</u> or <u>Correspondence Control-PHMC@anlmc01.rl.gov</u> .
NOTE: WDOH must receive the report at least 30 days prior to expiration of the current Hanford Site LOSS Permit.		
	7.	Upon receipt of the new Hanford Site LOSS permit from WDOH, distribute copies to the Responsible Managers.
Responsible Manager	8.	If the discharge includes radionuclides at concentrations, averaged monthly, that would otherwise be greater than five times the derived concentration guides values for liquids given in DOE Order 5400.5, Chapter III, at the point of discharge, perform the following: <ol style="list-style-type: none"> Implement the best available technology (BAT) selected (using the DOE Order 5400.5 BAT selection process) to treat the wastewater stream before discharge. Control the discharge so that long-term buildup of radionuclides in solids will not present a handling and disposal problem at the sewage disposal plant.
	9.	Maintain project/operations-specific documentation necessary to show compliance with onsite sewage system and sanitary sewer system requirements and applicable permit terms and conditions according to the instructions in <u>Section 7.0, Records</u> .

5.17 Operating Storage Tanks or Container Storage Areas That Store Oil

[Basis: HNF-RD-15332, Section 2.17]

NOTE: This section applies to the storage or use of oil with an aggregate storage of >1,320 gallons (in any container \geq 55 gallons in capacity, including tanks not regulated under 40 CFR 280) that are not located on the Central Plateau, may impact waters of the United States, and have a SPCC Plan.

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes – General</u> , when operating storage

Environmental Protection Processes

Actionee	Step	Action
		tanks or container storage areas that store oil.
	2.	Operate storage tanks that store oil in accordance with the SPCC Plan and 40 CFR 112.
	3.	Review the SPCC Plan: <ul style="list-style-type: none">• Whenever there is a change in facility design, construction, operation, or maintenance that affects the facility's potential for a petroleum products spill to waters of the United States.• In detail at least once every 5 years from the date the facility was required to implement the SPCC Plan.
	a.	Contact the <u>UST POC</u> for specific SPCC Plan review and certification requirements.
	b.	Document completion of the SPCC Plan review and evaluation, and sign a statement as to whether you will amend the Plan, either at the beginning or end of the Plan, or in a log or an appendix to the Plan, indicating "I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result."
	c.	Make amendments to the SPCC Plan within 6 months after there is a change.
	d.	Have the amended SPCC Plan reviewed and approved by a Registered Professional Engineer.
	4.	Conduct inspections and tests required by 40 CFR 112 in accordance with written procedures for the facility. Maintain the written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan according to the instructions in <u>Section 7.0, Records</u> .
	5.	Train oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.
	6.	Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

Environmental Protection Processes

Actionee	Step	Action
	7.	Schedule and conduct discharge prevention briefings for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for a facility.

NOTE: Known discharges, as specified in 40 CFR 112.1(b), or failures, malfunctioning components, and any recently developed precautionary measures are highlighted and described in the briefing.

5.18 Operating Drinking Water Systems

[Basis: HNF-RD-15332, Section 2.18]

Actionee	Step	Action
Water Purveyor	1.	Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes – General</u> , when operating drinking water systems.
	2.	Operate the drinking water system in accordance with the permit terms and conditions.
	3.	Ensure that the person(s) in charge of water system operations maintains the required certification.
	4.	Renew the permit annually in accordance with WAC 246-290.
EP Program Services Manager	a.	Submit the permit renewal to the EP Program Services Manager for concurrence before transmittal to the regulating agency.
	b.	Review and approve the drinking water system permit renewal and return it to the Water Purveyor.
Water Purveyor	c.	Copy the <i>Environmental Portal</i> on permit submittals to DOE-RL at Outlook Address: <u>^Correspondence Control-PHMC</u> or <u>Correspondence Control-PHMC@apimc01.rl.gov</u> .
	5.	Monitor water quality in accordance with applicable WDOH requirements and regulations.
	6.	Perform analysis and reporting in accordance with WDOH requirements and regulations.
	7.	Prepare and submit the "surface treatment rule" report and "ground water monitoring" report to WDOH every month. Copy the <i>Environmental Portal</i> at the

Environmental Protection Processes

Actionee	Step	Action
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address given in Step 5.18.4.c.

8. Maintain documentation necessary to show compliance with drinking water supply system requirements and applicable permit terms and conditions according to the instructions in Section 7.0, Records.

5.19 Operating Interim Status RCRA Treatment, Storage, and/or Disposal Units [Basis: HNF-RD-15332, Section 2.19]

NOTE: In accordance with the *Hanford Federal Facility Agreement and Consent Order* (Tri Party Agreement), the Hanford Site consists of a single *Resource Conservation and Recovery Act* (RCRA) facility (referred to as the Hanford Facility), consisting of over 70 treatment, storage or disposal (TSD) units. These TSD units are identified in DOE/RL-88-21, Hanford Facility Dangerous Waste Part A Permit Application (HF Part A Permit Application), maintained by the RCRA Sitewide Permitting (Modifications) POC. Each TSD unit contained in the HF Part A Permit Application is described in a Part A, Form 3, and has one of the following classifications: (1) interim status, (2) final status, or (3) "pending," i.e., awaiting a decision or approval from the Washington State Department of Ecology (Ecology).

Because all of the TSD units cannot be permitted simultaneously, Ecology and the EPA issued an initial *Hanford Facility RCRA Permit* (WA7890008967) (HF RCRA Permit) for less than the entire Hanford Facility. Over time, the HF RCRA Permit has, and will continue to grow, until all TSD units (except procedural closure TSD units) are incorporated. TSD units not yet incorporated into the HF RCRA Permit will be incorporated through a permit modification into one of three parts of the permit: (1) Part III, *Unit-Specific Conditions for Final Status Operations*; (2) Part V, *Unit-Specific Conditions for Units Undergoing Closure*; and (3) Part VI, *Unit-Specific Conditions for Units in Post-Closure*. Incorporation of operating TSD units into the HF RCRA Permit is based on information in the *Hanford Facility Dangerous Waste Permit Application* (HF Part B Permit Application), comprised of a General Information Portion (providing information at the Hanford Facility Level) and a TSD Unit-Specific Portion. Incorporation of non-operating TSD units is based on information in closure plans or post-closure documentation. Permit application and closure documentation, developed by the Operator/Co-operator (DOE-RL/FH), is attached to the HF RCRA Permit; Ecology uses permit conditions to designate which portions of the attached documentation are enforceable.

TSD units already incorporated into the HF RCRA Permit are subject to permit conditions and final status permit modification requirements. TSD units not yet incorporated into the HF RCRA Permit are subject to interim status requirements.

Actionee	Step	Action
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Responsible Manager	1. Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes - General</u> , when operating RCRA interim status TSD units.
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2. If the TSD unit is a non-operating interim status unit that previously managed

Environmental Protection Processes

Actionee	Step	Action
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dangerous and/or mixed waste, comply with this section unless an agreement with Ecology has been documented and concurred with by Legal Services.

3. If the TSD unit is an operating unit, comply with WAC 173-303-400(3).

NOTE: Where practicable, Responsible Managers are encouraged to operate interim status TSD units in a manner consistent with the level of detail and content in the HF RCRA Part B Permit Application (e.g., consistent levels of security, traffic patterns, contingency plan implementation, training, etc.). This proactive management approach will facilitate transition of the unit to final status operations, once incorporated into the HF RCRA Permit.

- a. Treat, store, and/or dispose of dangerous and/or mixed waste in accordance with interim status provisions except as allowed through generator provisions such as treatment-by-generator, recycling, or other permitting exclusions [see WAC 173-303-400(2)(c)].
 1. Manage mixed waste in accordance with this section for the dangerous waste component and in accordance with the *Atomic Energy Act* (AEA) for the radiological waste component.

NOTE: RCRA applies to mixed wastes to the extent that it is not inconsistent with the AEA.

2. Treat and/or dispose of mixed waste according to the applicable requirements of WAC 173-303-140 and WAC 173-303-400 or 600.
- b. Maintain and implement a Waste Analysis Plan in accordance with WAC 173-303-300.

NOTE: The term "analysis" does not necessarily mean testing but rather as used in the context defined in the *Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste* (62 Federal Register 62079). This guidance: (1) emphasizes and encourages the use of process knowledge, whenever possible, to determine if a waste is hazardous as a way to avoid unnecessary exposures to radioactivity; (2) emphasizes ways in which unnecessary and redundant testing of mixed waste may be avoided; (3) describes methods which reduce occupational radiation exposure and satisfy the intent of the RCRA testing requirements; and (4) stresses flexibility in the RCRA requirements.

- c. Post "No Smoking" signs in active portions of TSD units, where ignitable or reactive waste is managed in accordance with WAC 173-303-395(1).
- d. Post warning signs stating "DANGER--UNAUTHORIZED PERSONNEL

Environmental Protection Processes

Actionee	Step	Action
		KEEP OUT" (or an equivalent legend) at TSD units.

NOTE: Requirements for a 24-hour surveillance system (WAC 173-303-310(2)(b)) and an artificial or natural barrier system (WAC 173-310(2)(c)) are met at the Hanford Facility level and are not the responsibility of TSD unit Responsible Managers.

- e. Maintain and implement a written dangerous waste training plan in accordance with HNF-PRO-459, Environmental Training.
- f. Maintain a TSD unit contingency plan along with the sitewide plan (DOE/RL-94-02, Hanford Emergency Management Plan) available at location(s) appropriate for unit operations.

NOTE: Contingency Plan documentation can be combined for more than one unit. Emergency Coordinator names and home telephone numbers are maintained at the Hanford Patrol Operations Center.

- g. Maintain and implement an inspection schedule in accordance with WAC 173-303-320 which includes applicable items and frequencies as required for the unit-specific provisions (e.g., 40 CFR 265, Subparts F through R).
 - 1. Note observations made during the inspections in the operating log.
 - 2. Correct problems found during the inspections on a schedule that prevents hazards to the public health and environment.
- h. Store nonradioactive dangerous wastes solely for the purpose of the accumulation of quantities necessary to facilitate proper recovery, treatment, and/or disposal in accordance with 40 CFR 268.50(a).
 - 1. Consolidate mixed waste generated that cannot be treated and/or disposed as generated, at the Central Waste Complex, the Double Shell Tank System, or the Plutonium Uranium Extraction Plant (PUREX) Storage Tunnels.
 - 2. Notify the RCRA Waste Designation, Land Disposal Restrictions (LDR), & LDR Report Coordinator POC if another long-term storage location must be identified in the *Tri-Party Agreement LDR Report* because acceptance criteria for these TSD units cannot be met.
 - 3. If waste will be in onsite long-term storage because the waste is a mixed waste, maintain designation records in the *TSD Unit-Specific Operating Record* for future management of the waste.

Environmental Protection Processes

Actionee	Step	Action
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4. Maintain records readily accessible that demonstrate movement of waste to subsequent TSD units.
 - i. Mark or label containers clearly to identify the major risk(s) as follows:
 - State-Only/ U.S. Department of Transportation (DOT) and Federal Hazardous Waste: The words "hazardous waste" or "dangerous waste" and the DOT hazard class label or mark are sufficient.
 - State-Only/Non-DOT Dangerous Waste: The words "hazardous waste" or "dangerous waste" are sufficient.
4. Ensure that annual inspections are performed in areas where ignitable (D001) or reactive (D003) waste is managed.
 - a. Perform inspections by or in the presence of a professional person who is familiar with the Uniform Fire Code, or in the presence of the local, state, or federal fire marshal.
 - b. Enter the following information in the inspection log or operating record as a result of this inspection:
 - Date and time of the inspection,
 - Name of the professional inspector or fire marshal,
 - Notation of the observations made, *and*
 - Any remedial actions that were taken as a result of the inspection.
5. For new dangerous and/or mixed waste tank systems and new tank system components, procure engineering services that meet the independence criteria of WAC 173-303.
 - Ensure an IQRPE or independent qualified installation inspector, or representative, is present onsite during inspections.
 - Ensure the representative maintains independence consistent with the IQRPE or independent qualified installation inspector.

NOTE: FH organizations are *not* considered independent to implement WAC 173-303.

6. Maintain cognizance of groundwater monitoring at dangerous waste landfills and surface impoundments and operable units performed by Pacific Northwest National

Environmental Protection Processes

Actionee	Step	Action
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Laboratory (PNNL).

7. Develop RCRA TSD unit dangerous waste permit applications in accordance with the requirements of the Tri-Party Agreement and WAC 173-303-806(2), consistent with the current revision of the HF Part B Permit Application, as necessary to comply with the HF RCRA Permit. (See Section 5.6)
8. Follow closure time frames in WAC 173-303-610(4)(a) and (b) or request a delay in closure from Ecology at least 60 days before receiving the last receipt of dangerous and/or mixed waste into the TSD unit in accordance with WAC 173-303-610(4)(c).

NOTE: Delay in closure provisions do *not* need to be requested if Ecology has approved a closure schedule for the TSD unit in the HF RCRA Permit or the project has addressed submittal of the closure plan to Ecology in a TPA milestone or target date.

Interim status closure plans not incorporated into the HF RCRA Permit can be amended by the project without following the permit modification process.

9. Develop or revise, as appropriate, TSD interim status closure plans, and postclosure documentation on a schedule to meet any TPA milestones or target dates, or permit schedules.
 - a. Prepare interim status closure plans in accordance with WAC 173-303-610(3)(a).
 - b. Prepare post-closure documentation in accordance with WAC 173-303-610(8)(b).
10. Prepare input for the *Hanford Site Annual Dangerous Waste Report* in a format and schedule identified by EP Monitoring & Reporting. Certify the information submitted according to EP Monitoring & Reporting processes.
11. Consolidate information provided by the Responsible Managers and prepare the *Annual Dangerous Waste Report* for submittal to DOE-RL. Copy the *Environmental Portal* on submittals to DOE-RL at Outlook Address: ^Correspondence Control-PHMC or Correspondence Control-PHMC@apimc01.rl.gov.
12. a. Maintain operating records for a RCRA TSD unit according to WAC 173-303-380(1)(k), (m), and (o) in the RCRA TSD Unit-Specific File of the Hanford Facility Operating Record. Also see instructions in Section 7.0, Records.

EP
Monitoring
& Reporting
Manager

Responsible
Manager

Environmental Protection Processes

Actionee	Step	Action
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- b. If Operating Record documentation is kept in an electronic media format, take steps to provide traceability (e.g., a scanned image, such as a "pdf" file, cannot be altered).

NOTE: Operating record requirements for the Hanford Facility RCRA TSD units vary depending on whether treatment, storage, and/or disposal are performed onsite or offsite. The Responsible Manager for a RCRA TSD unit may choose whether the recordkeeping distinction allowed for onsite waste in WAC 173-303-380(1)(k), WAC 173-303-380(1)(m), and WAC 173-303-380(1)(o) are used.

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| EP Program
Services
Manager | 13. a. Maintain the General Information Portion of the Hanford Facility Operating Record in accordance with Condition II.I.1 of the HF RCRA Permit. Also see instructions in <u>Section 7.0, Records</u> .

b. Obtain approval from Ecology to maintain "Offsite Operating Record" documentation locations in accordance with HF RCRA Permit Condition I.H. |
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5.20 Operating Final Status Resource Conservation and Recovery Act Treatment, Storage, and/or Disposal Units
[Basis: HNF-RD-15332, Section 2.20]

NOTE: In accordance with the *Hanford Federal Facility Agreement and Consent Order* (Tri Party Agreement), the Hanford Site consists of a single *Resource Conservation and Recovery Act* (RCRA) facility (referred to as the Hanford Facility), consisting of over 70 treatment, storage or disposal (TSD) units. These TSD units are identified in DOE/RL-88-21, Hanford Facility Dangerous Waste Part A Permit Application (HF Part A Permit Application), maintained by the RCRA Sitewide Permitting (Modifications) POC. Each TSD unit contained in the HF Part A Permit Application is described in a Part A, Form 3, and has one of the following classifications: (1) interim status, (2) final status, or (3) "pending," i.e., awaiting a decision or approval from the Washington State Department of Ecology (Ecology).

Because all of the TSD units cannot be permitted simultaneously, Ecology and the EPA issued an initial *Hanford Facility RCRA Permit* (WA7890008967) (HF RCRA Permit) for less than the entire Hanford Facility. Over time, the HF RCRA Permit has, and will continue to grow, until all TSD units (except procedural closure TSD units) are incorporated. TSD units not yet incorporated into the HF RCRA Permit will be incorporated through a permit modification into one of three parts of the permit: (1) Part III, *Unit-Specific Conditions for Final Status Operations*; (2) Part V, *Unit-Specific Conditions for Units Undergoing Closure*; and (3) Part VI, *Unit-Specific Conditions for Units in Post-Closure*. Incorporation of operating TSD units into the HF RCRA Permit is based on information in the *Hanford Facility Dangerous Waste Permit Application* (HF Part B Permit Application), comprised of a General Information Portion (providing information at the Hanford Facility Level) and a TSD Unit-Specific Portion. Incorporation of non-operating TSD units is based on information in closure plans or post-closure documentation. Permit application and closure documentation, developed by the

Environmental Protection Processes

Operator/Co-operator (DOE-RL/FH), is attached to the HF RCRA Permit; Ecology uses permit conditions to designate which portions of the attached documentation are enforceable.

TSD units already incorporated into the HF RCRA Permit are subject to permit conditions and final status permit modification requirements. TSD units not yet incorporated into the HF RCRA Permit are subject to interim status requirements.

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.12, Operating Facilities, Equipment, or Processes - General</u> , when operating RCRA final status TSD units.
	2.	Operate RCRA final status TSD units in accordance with WAC 173-303-600 and the conditions contained in the HF RCRA Permit.

NOTE: HF RCRA Permit conditions applicable to TSD unit operations are delineated in Attachment 3 of the Permit, "Applicability Matrix."

For activities subject to the HF RCRA Permit, the permit requirements supersede requirements contained in this procedure.

- a. Treat, store, and/or dispose of dangerous waste in accordance with the HF RCRA Permit except as allowed through generator provisions such as treatment-by-generator, recycling, or other permitting exclusions (see WAC 173-303-600(3)).
1. Manage mixed waste in accordance with this section for the dangerous waste component and the *Atomic Energy Act* (AEA) for the radiological waste component.

NOTE: RCRA applies to mixed wastes to the extent that it is not inconsistent with the AEA.

- b. Analyze waste in accordance with the Waste Analysis Plan.

NOTE: The term "analysis" does not necessarily mean testing but rather as used in the context defined in the *Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste* (62 Federal Register 62079). This guidance: (1) emphasizes and encourages the use of process knowledge, whenever possible, to determine if a waste is hazardous as a way to avoid unnecessary exposures to radioactivity; (2) emphasizes ways in which unnecessary and redundant testing of mixed waste may be avoided; (3) describes methods which reduce occupational radiation exposure and satisfy the intent of the RCRA testing requirements; and (4) stresses flexibility in the RCRA requirements.

Environmental Protection Processes

Actionee	Step	Action
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- c. Maintain and implement a written dangerous waste training plan in accordance with HNF-PRO-459, Environmental Training.
- d. Maintain a TSD unit contingency plan along with the sitewide plan (DOE/RL-94-02, Hanford Emergency Management Plan) available at location(s) appropriate for unit operations.

NOTE: Contingency Plan documentation can be combined for more than one unit. Emergency Coordinator names and home telephone numbers are maintained at the Hanford Patrol Operations Center.

- e. Maintain and implement the inspection schedule in accordance with the HF RCRA Permit.
3. Store dangerous and/or mixed waste according to the permit conditions and as follows:
- a. Store nonradioactive dangerous wastes solely for the purpose of the accumulation of quantities necessary to facilitate proper recovery, treatment, and/or disposal in accordance with 40 CFR 268.50(a).
 - b. Consolidate mixed waste generated that cannot be treated and/or disposed as generated, at the Central Waste Complex, the Double Shell Tank System, or the Plutonium Uranium Extraction Plant (PUREX) Storage Tunnels.
 - 1. Notify the RCRA Waste Designation, Land Disposal Restrictions (LDR), & LDR Report Coordinator POC if another long-term storage location must be identified in the *Tri-Party Agreement LDR Report* because acceptance criteria for these TSD units cannot be met.
 - c. If waste will be in onsite long-term storage because the waste is a mixed waste, maintain designation records in the TSD Unit-Specific *Operating Record* for future management of the waste.
 - d. Maintain records readily accessible that demonstrate movement of waste to subsequent TSD units.
4. Maintain cognizance of groundwater monitoring at dangerous waste landfills and surface impoundments performed by Pacific Northwest National Laboratory.
5. Follow closure time frames in WAC 173-303-610(4)(a) and (b) or request a delay in closure from Ecology at least 60 days before receiving the last receipt of

Environmental Protection Processes

Actionee	Step	Action
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dangerous and/or mixed waste into the TSD unit in accordance with WAC 173-303-610(4)(c).

NOTE: Delay in closure provisions do not need to be requested if Ecology has approved a closure schedule for the TSD unit in the HF RCRA Permit or the project has addressed submittal of the closure plan to Ecology in a TPA milestone or target date.

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| EP
Monitoring
& Reporting
Manager | 6. Prepare input for the <i>Hanford Site Annual Dangerous Waste Report</i> in a format and schedule identified by EP Monitoring & Reporting. Certify the information submitted according to EP Monitoring & Reporting processes. |
| EP
Monitoring
& Reporting
Manager | 7. Consolidate information provided by the Responsible Managers and prepare the <i>Annual Dangerous Waste Report</i> for submittal to DOE-RL. Copy the <i>Environmental Portal</i> on submittals to DOE-RL at Outlook Address: <u>^Correspondence Control-PHMC or Correspondence Control-PHMC@apimc01.rl.gov</u> . |
| Responsible
Manager | 8. a. Maintain operating records for a RCRA TSD unit according to WAC 173-303-380(1)(k), WAC 173-303-380(1)(m), and WAC 173-303-380(1)(o) in the RCRA TSD Unit-Specific File of the Hanford Facility Operating Record. Also see instructions in <u>Section 7.0, Records</u> .

b. If Operating Record documentation is kept in an electronic media format, take steps to provide traceability (e.g., a scanned image, such as a "pdf" file, cannot be altered). |

NOTE: Operating record requirements for the Hanford Facility RCRA TSD units vary depending on whether treatment, storage, and/or disposal are performed onsite or offsite. The Responsible Manager for a RCRA TSD unit may choose whether the recordkeeping distinction allowed for onsite waste in WAC 173-303-380(1)(k), WAC 173-303-380(1)(m), and WAC 173-303-380(1)(o) are used.

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| EP Program
Services
Manager | 9. a. Maintain the General Information Portion of the Hanford Facility Operating Record in accordance with Condition II.I.1. of the HF RCRA Permit. Also see instructions in <u>Section 7.0, Records</u> .

b. Obtain approval from Ecology to maintain "Offsite Operating Record" documentation locations in accordance with HF RCRA Permit Condition I.H. |
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Environmental Protection Processes

5.21 Using Portable or Temporary Air Emission Sources That Emit Radionuclides

[Basis: HNF-RD-15332, Section 2.21]

Actionee	Step	Action
Responsible Manager	1.	Operate emission units covered by a sitewide <i>Notice of Construction</i> (NOC) in conformance to the NOC and approval conditions. Contact the <u>Radioactive Air POC</u> for assistance regarding applicability or use of the NOCs.

NOTE: Sitewide NOCs have been approved under state and federal regulations for radioactive air emissions.

Tracking and reporting are required of NOCs. Operators of sources covered by NOCs should review the specific NOC in detail and implement applicable requirements. For example, quarterly updates for the Portable and Temporary Radioactive Air Emission Units report.

2. Perform an in-place particulate filtration efficiency (leak) test before initial *startup* at each location and after each filter change according to the instructions in Section 5.30, Maintaining and Testing High Efficiency Particulate Air Filters.
3. If the sitewide NOCs do not cover use of the source, see Section 5.5, Constructing or Modifying Air Emission Units That Potentially Emit Radionuclides to the Ambient Air (Including Changes to Processes), before use or procurement.

5.22 Using Polychlorinated Biphenyl Containing Oil-Filled Electrical Equipment, Electromagnets, Switches, and Voltage Regulators

[Basis: HNF-RD-15332, Section 2.22]

Actionee	Step	Action
Responsible Manager	1.	Register any new <i>polychlorinated biphenyl</i> (PCB) transformers that are discovered with the EPA. Contact the <u>Toxic Substances Control Act/PCBs POC</u> for assistance.

NOTE: Known PCB transformers were registered with EPA as required by 40 CFR 761.30(a)(1)(vi).

2. Handle and control oil-filled electrical equipment where PCB concentration is unknown as *PCB-contaminated*, unless the equipment has been certified as non-PCB except as noted below.
 - Assume that transformers containing <3 pounds (1.36 kilograms) of fluid, circuit breakers, reclosers, and oil filled cable and rectifiers whose PCB concentration is unknown to be <50 ppm unless testing proves it to be otherwise.
 - See 40 CFR 761.2 for a thorough explanation of the "assumption"

Environmental Protection Processes

Actionee	Step	Action
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requirements.

3. Manage any oil filled transformer, originally assumed to contain <500 ppm PCBs, which is tested and found to contain ≥ 500 ppm PCBs in accordance with the requirements of 40 CFR 761.30(a)(1)(xv).
4. Clearly label *PCB Items* listed in 40 CFR 761.40(a) with the large PCB mark (M_L) described in 40 CFR 761.40. If the item is too small to accommodate the smallest size M_L , use a smaller PCB mark (M_S).
5. Place PCB marks in a position on the exterior of PCB Items, storage units, or transport vehicles so the marks can be read easily by any person inspecting or servicing the marked items, storage units, or transport vehicles.
6. Inspect in service *PCB transformers* and voltage regulators (≥ 500 ppm PCBs) at least every 3 months with a minimum of 30 days between inspections.
 - a. If a PCB transformer is found to have a leak which results in any quantity of PCBs running off or about to run off the external surface of the transformer perform the following:
 1. Contact the *Occurrence Notification Center (ONC)* within 30 minutes according to the instructions in Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances.

NOTE: Electrical Utilities may be contacted for assistance in responding to spills or releases from electrical equipment.

2. Contain any active leak.
3. Repair or replace the transformer and initiate cleanup of the leak as soon as possible, but in no case later than within 48 hours of discovery.
4. Inspect the transformer daily to verify containment of the leak.

NOTE: Some special circumstances allow for reduced inspection frequency (refer to 40 CFR 761.30 (a)(1)(xiii) for these circumstances).

7. Update PCB equipment information in the Solid Waste Information and Tracking System (SWITS) database in support of preparation of the sitewide *PCB Annual Document Log* and the *PCB Annual Report*.

Environmental Protection Processes

Actionee	Step	Action
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NOTE: The *PCB Annual Document Log* is maintained at the sitewide level. The "official" copy is available on the Record Management Information System (RMIS) indicating transmittal of the Log to DOE-RL.

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| EP
Monitoring
& Reporting
Manager | 8. | Prepare and finalize the <i>PCB Annual Document Log</i> . |
| | 9. | Prepare the <i>PCB Annual Report</i> for submittal to EPA. |
| | 10. | Copy the <i>Environmental Portal</i> on submittals to DOE-RL at Outlook Address: <u>^Correspondence Control-PHMC</u> or <u>Correspondence Control-PHMC@apimc01.rl.gov</u> . |
| Responsible
Manager | 11. | Maintain records required by 40 CFR 761.30, 40 CFR 761.35, 40 CFR 761.61, 40 CFR 761.65, 40 CFR 761.75, 40 CFR 761.79, 40 CFR 761.80, 40 CFR 761.125, and Subpart K to satisfy EPA requirements according to the instructions in <u>Section 7.0, Records</u> . Include this information in the SWITS database. |

5.23 Using and Storing Chemicals, Chemical Products, and Hazardous Materials

[Basis: HNF-RD-15332, Section 2.23]

- | Actionee | Step | Action |
|------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Responsible
Manager | 1. | Support project-specific Emergency Planning and Community Right-To-Know Act (EPCRA) activities. <ul style="list-style-type: none"> a. Provide input to, and review the <i>Tier Two Report</i> and <i>Toxic Chemical Release Inventory (TRI) Report</i> (or <i>TRI Compliance Validation Report</i>) in accordance with the schedule and format provided by the <u>EPCRA POC</u>. b. Contact the EPCRA POC for assistance in developing or implementing the EPCRA compliance program and associated report input. |
| | 2. | Support the development of facility hazardous material inventory control practices, to account for hazardous chemicals stored and used under the Responsible Manager's control. |
| | 3. | Designate responsible engineering, scientific, or trained technical personnel to function as the <i>EPCRA Reporting Contact(s)</i> . |
| | 4. | Implement <u>HNF-PRO-10468, Chemical Management Process</u> , when using and storing chemicals and hazardous materials. |

Environmental Protection Processes

Actionee	Step	Action
EPCRA Reporting Contact	5.	Develop and implement hazardous material inventory control practices to account for <i>hazardous chemicals</i> .
	6.	Ensure physical inventories of hazardous chemicals stored in locations under the control of the applicable organizations are conducted, and the chemical inventory information is maintained and submitted to the <u>EPCRA POC</u> according to the instructions in HNF-PRO-15335, <i>Environmental Permitting and Documentation Preparation</i> , Section 5.11, <i>Preparing and Submitting EPCRA Information and Reports</i> .
Responsible Manager	7.	Maintain supporting documentation for facility-specific input to EPCRA reports according to the instructions in <u>Section 7.0, Records</u> .

5.24 Performing Operations Consistent With *National Environmental Policy Act* Routine Administrative Activities

[Basis: HNF-RD-15332, Section 2.24]

Actionee	Step	Action
Responsible Manager	1.	Ensure that operations are performed consistent with the requirements of the <i>National Environmental Policy Act</i> (NEPA), unless excluded as a routine administrative activity as listed below.

NOTE: Activities listed below are considered routine administrative activities and no NEPA documentation is required.

- Routine actions necessary to support the normal conduct of agency business, such as administrative, financial, and personnel actions.
- Contract interpretations, amendments, and modifications that are clarifying or administrative in nature.
- Adjustments, exceptions, exemptions, appeals, and stays, modifications, or rescissions of orders issued by the Office of Hearings and Appeals.
- Interpretations and rulings with respect to existing regulations, or modifications or rescissions of such interpretations and rulings.
- Rulemaking interpreting or amending an existing rule or regulations that does not change the environmental effect of the rule or regulation being amended.
- Rulemakings that are strictly procedural, such as rulemaking establishing procedures for technical and pricing proposals and establishing contract clauses and contracting practices for the purchase of goods or services, and rulemaking establishing application and review procedures for, and administration, audit, and closeout of, grants and cooperative agreements.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> • Transfer, lease, disposition, or acquisition of interests in personal property (for example, equipment and materials) or real property (for example, permanent structures and land), <u>if property use is to remain unchanged</u>; that is, the type and magnitude of impacts would remain essentially the same. • Award of contracts for technical support services, management, and operations of a government-owned facility, and personal services. • Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring. • Reports or recommendations on legislation or rulemaking that is not proposed by DOE. • Technical advice and planning assistance to international, national, state, and local organizations. • Emergency preparedness planning activities, including the designation of onsite evacuation routes. • Administrative, organizational, or procedural Orders, Notices, and guidelines. • Approval of technical exchange arrangements for information, data, or personnel with other countries or international organizations, including, but not limited to, assistance in identifying and analyzing another country's energy resources, needs, and options. • Approval of DOE participation in international "umbrella" agreements for cooperation in energy research and development activities that would not commit the United States to any specific projects or activities.

2. If the activity is not listed above, it is not considered a routine administrative activity and NEPA documentation may be required. Contact the NEPA/SEPA POC for assistance.

5.25 Finding Special Status Animals or Plants (Live or Dead) on the Hanford Site

[Basis: HNF-RD-15332, Section 2.25]

Actionee	Step	Action
Responsible Manager	1.	Contact the <u>NEPA/SEPA POC</u> before taking any special status animal or plant, or part thereof, living or dead.
NEPA/SEPA POC	2.	Contact Pacific Northwest National Laboratory, who will contact the appropriate federal and/or state agency and obtain permits or approvals to take any special

Environmental Protection Processes

Actionee	Step	Action
		status animal or plant, or part thereof, living or dead.

5.26 Responding to Regulatory Agency Inspections

[Basis: HNF-RD-15332, Section 2.26]

Actionee	Step	Action
All Employees	1.	<p>Upon receiving notification that an environmental regulatory compliance inspection is to be conducted, perform the following:</p> <ul style="list-style-type: none"> Immediately inform the <u>Regulatory Inspections POC</u> and the <u>Cognizant ECO</u>. Refer all requests for information to the Cognizant ECO or Regulatory Inspections POC. <i>Do not</i> provide documentation or other material to a regulatory agency inspector without proper clearance and the approval of the Cognizant ECO or Regulatory Inspections POC.

NOTE: If the Regulatory Inspections POC cannot be contacted, or for some reason is unable to perform the listed actions in this activity, then the functions of the Regulatory Inspections POC are to be performed by the Cognizant ECO.

Regulatory Inspections POC	2.	Determine the objective and scope of the inspection and the authority under which the inspection is made.
	3.	Notify the following of impending inspections: Cognizant ECO(s), Building Manager, Program Manager, Project Manager, Legal Services staff, affected DOE-RL project personnel, DOE-RL Regulatory Compliance Assurance personnel, and other affected prime contractors.
	4.	<p>Perform the following to prepare for impending inspections:</p> <ul style="list-style-type: none"> Identify the appropriate staff members to support the inspection activity. Establish the protocol and planned schedule for the inspection, if not determined by the regulatory agency. If time is available, and as appropriate, hold a meeting of key participants before the inspection to review all pertinent items.

NOTE: The inspection team typically consists of the Cognizant ECO(s), Regulatory Inspections POC and/or delegate, affected building manager; and, depending on the type of inspection, the affected project manager(s) and appropriate subject matter expert(s). Other operational and radiological personnel provide support as needed during the inspection. It is recommended that the size of the

Environmental Protection Processes

Actionee	Step	Action
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inspection team directly escorting the regulators be minimal as appropriate to the scope, size, and schedule of the inspection. It is recommended that a pre-inspection of the area or activity be completed before the regulatory inspection.

- For the areas to be inspected, determine applicable training, access requirements, and the need for personal protective equipment.
- Prepare an attendance form that identifies the date and topic of the inspection, and the names, agency/organization/company, and phone number of all participants.
- Determine an agenda, what level of preparation is necessary and how information on the inspection is collected and maintained.
- Obtain any necessary clearances or permission for the regulatory inspector to enter areas that might be sensitive with respect to operational activities.
- Establish location and schedule conference room for entrance and exit briefings, if applicable; notify affected staff.

NOTE: FH personnel are obligated to allow access to regulatory inspectors, as long as applicable training and access requirements are met, and safety and site-specific rules are followed.

5. Perform the following at an entrance meeting, or similar session, prior to the actual inspection:
 - Complete, and request that participants complete the attendance form.
 - Ensure that all hazards have been discussed and relayed to the inspectors; including the following:
 - Hazards the inspectors may encounter.
 - Applicable access requirements.
 - Training.
 - Personal protective equipment.
 - Emergency procedure and exits.

NOTE: The Regulatory Inspections POC should be contacted for comprehensive guidance and recommendations concerning the conduct of entrance and exit briefings, pre-inspection guidelines, and additional information concerning conduct during regulatory agency inspections.

Regulatory
Inspections

6. Perform the following during inspections:

Environmental Protection Processes

Actionee	Step	Action
POC		<ul style="list-style-type: none">• Make contact with staff from the appropriate organizations for project-specific questions during the inspection.• Ensure that the inspector(s) is accompanied at all times during the inspection; when accompanying the inspector, follow the radiological, safety, and security requirements.• Take notes of areas inspected, issues covered, concerns raised, and other staff contacted.• Document and notify appropriate FH management as soon as is practical of any issues, concerns or violations alleged by the regulatory inspector(s).• Assist with data collection, expedited document clearance, and transmittal of information as requested.• Take split samples of any samples collected by the inspector(s). Document the inspector's sampling methodology, and, when possible, photograph or videotape the sampling process.• When feasible, address potential compliance issues raised by the inspectors and take any necessary corrective actions to immediately maintain a record of these activities.• Prepare information requests as described in Step 5.26.7. Record all documents and samples requested and provided.
	7.	<p>Prepare information requests from regulatory agency inspectors as follows:</p> <ul style="list-style-type: none">• If possible, provide documents as a package rather than immediately on request to ensure documentation is appropriate and current; discuss expectations of when the inspectors anticipate receiving the requested documentation (due dates).• In accordance with a standing WDOH interpretation of a requirement that records are to be readily retrievable and made available to inspectors, provide WDOH requested Stack related information within 24 hours of being requested [see WAC 246-247-080(8)].• Draw the information from official resources. <i>Do not</i> provide the inspector with 'working copies' or drafts of documents unless specifically asked to do so; if it is necessary to provide drafts or working papers, mark these accordingly.• Review the information according to the processes defined during the preparation phase; ensure information is current and appropriate.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> Ensure all information has been processed through the information release process (<u>HNF-PRO-184, Document Release</u>). After the review, transmit the information to the regulatory agency and provide a listing to the <u>Regulatory Inspections POC</u>; maintain a copy of the listing in the Central Inspection File.

NOTE: The Regulatory Inspections POC maintains a Central Inspection File. A project/facility may obtain a copy of file contents for a particular inspection by contacting the Regulatory Inspections POC.

- Obtain signed receipt to document the submittal to the regulatory agency.

- Contact the Regulatory Inspections POC for an example of a *Receipt for Requested Information*.

Responsible Manager 9. Respond to regulatory agency inspection results, as appropriate.

5.27 Maintaining and Repairing Facilities, Equipment, or Processes – General [Basis: HNF-RD-15332, Section 2.27]

NOTE: The category of “maintaining and repairing” does not include *modifications* to facilities, such as the replacement of equipment that is *not* like-for-like replacement. Modifications are addressed in Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General.

Actionee	Step	Action
Responsible Manager / Work Planner	1.	Before starting maintenance or repair activities, or before entering into binding contracts to complete any part of the activities, or procuring goods or services for the activities, have qualified personnel complete an <i>Environmental-Activity Screening form</i> (Site Form A-6003-727) or use the <i>Automated Job Hazard Analysis (AJHA)</i> system:

NOTE: Individual(s) responsible for initially filling out an *Environmental-Activity Screening form* or answering *only* the first-level *National Environmental Policy Act (NEPA)* question in the AJHA system must be a *Cognizant Environmental Compliance Officer (ECO)* or have a minimum of 2 hours of NEPA on-the-job training (provided and/or approved by the Environmental Protection (EP) Director).

The *NEPA Screening form* (Site Form A-6001-497) can be used in lieu of the *Environmental-Activity Screening form* for 90 days after the publication of this procedure. The 90-day phase-in period will enable usage-orientation sessions to take place for the *Environmental-Activity*

Environmental Protection Processes

Actionee	Step	Action
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Screening form. The content of the *NEPA Screening form* has been incorporated into the *Environmental-Activity Screening form*.

EXCEPTION: "No planning required" work activities as defined in HNF-12115, Work Management, or within facility implementing procedures is pre-screened for the NEPA applicability and other environmental requirements and does *not* require use of the *NEPA Screening form* or the *Environmental-Activity Screening form*.

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| Cognizant
ECO (or
other NEPA-
Trained
Individual | 2. Complete the <i>Environmental-Activity Screening form</i> (according to the instructions in <u>Section 5.1</u>) or an AJHA (see <u>HNF-PRO-079, Job Hazard Analysis</u>). Use one of these tools to determine if the proposed <i>project</i> is covered by existing: <ul style="list-style-type: none"> • NEPA or <i>State Environmental Policy Act</i> (SEPA) documentation. • <i>Hanford Cultural Resources Compliance Review</i> (HCRC) or <i>Ecological Compliance Resources Review</i> (ECR) approvals. • <i>Comprehensive Environmental Response, Compensation and Liability Act</i> documentation (if applicable). • Permits, approvals, and/or other environmental requirements and documentation. |
| Cognizant
ECO | 3. Review the results of Step 5.27.2, or request that the <u><i>Environmental-Activity Screening Form</i></u> POC arrange for review of these results. Assess for the following: <ul style="list-style-type: none"> a. Determine if NEPA or SEPA coverage is sufficient; if not, address the NEPA/SEPA according to the instructions in <u>HNF-PRO-15335, Environmental Permitting and Documentation Preparation, Section 5.1, Performing Environmental Reviews and Preparing National Environmental Policy Act Documentation</u>. b. Determine if HCRC and/or ECR coverage is sufficient; if not, address these reviews according to the instructions in <u>HNF-PRO-15335, Section 5.1</u>. c. Determine if other environmental permits, approvals, or documentation are required to proceed with the project. d. If the <i>Environmental-Activity Screening form</i> is used, complete Sections C (Work Management Applicability) and D (Approvals). If the AJHA system is used, complete approvals in accordance with <u>HNF-PRO-079</u>. |
| | 4. Provide the Responsible Manager with documentation (e.g., e-mail) of the results |

Environmental Protection Processes

Actionee	Step	Action
		of the environmental review, and the anticipated timeframe needed to complete any required environmental actions (e.g., obtain/modify permits, obtain approvals, complete other environmental documentation). Assist the Responsible Manager to complete these actions.
Responsible Manager	5.	Before performing an action that has the potential to impact a <i>Waste Information Data System (WIDS) waste management unit site</i> , proceed according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u> .
	6.	Before starting any demolition or renovation activities, including removing or demolishing a <i>load-bearing structural member</i> , contact the Cognizant Asbestos POC to determine if the work requires submittal of a Notification of Intent (NOI) to the Benton Clean Air Authority. [See <u>Section 5.38, Removing Asbestos-Containing Material (i.e., Renovation)</u> , in addition to the instructions in this section.] Contact the Cognizant ECO if uncertainty exists as to who the Cognizant Asbestos POC is for the project and/or facility.
	7.	If the activity will potentially disturb chemical or radioactive contamination, determine whether an air emission <i>Notice of Construction (NOC)</i> is required; if required, prepare an NOC according to the instructions in HNF-PRO-15335, <u>Section 5.2, Permitting Criteria/Toxic Air Emissions Sources</u> , and/or <u>Section 5.3, Permitting Radioactive Air Emissions Sources</u> .
NOTE: The disturbance of radioactive contamination is a potential source of radioactive airborne emissions and may constitute a regulated activity. An advance submittal and regulatory approval of a NOC application may be required by WDOH and by EPA, Region 10. The approval requirements apply to temporary, portable, or permanent activities.		
	8.	Manage any fluorescent light ballast when removed from service, whether leaking or nonleaking, as Toxic Substances Control Act (TSCA)-regulated waste unless they have a label indicating "NO PCBs" or manufacturer paperwork stating they do not contain PCBs or unless testing is performed that confirms that ballast does not contain PCBs. (See <u>Section 5.81, Disposing of Polychlorinated Biphenyl Waste and Polychlorinated Biphenyl Items</u> .)
	9.	Do <i>not</i> introduce exotic plant or animal species, including those intended for the purposes of soil stabilization or revegetation, pest control, or landscaping, without prior review by the <u>NEPA/SEPA POC</u> .
	10.	Perform the following during implementation of the construction or modification project:

Environmental Protection Processes

Actionee	Step	Action
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- a. Proceed with the project according to the requirements in the NEPA and/or SEPA approvals, HCRC approvals, ECR approvals, permit conditions, and any other requirements or approvals identified.

NOTE: Emergency repair work that is necessary to safeguard human health and safety does not require a HCRC review/report.

- b. If asbestos is found during a demolition or renovation project where no asbestos was expected, stop work and evaluate the need for an individual NOI. [See Section 5.38, *Removing Asbestos-Containing Material (i.e., Renovation)*.]
- c. Stop work and ensure permit approval coverage is provided if radioactive material is found where none was expected and where it may be potentially contacted.
- d. Take precautions to prevent the emission of air pollutants resulting from *fugitive emissions*.
 1. Minimize fugitive dust generation during construction or related activities, or by any operation activities.
 2. Contact the Non-Radioactive Air POC to obtain additional guidance, as needed.
11. If soil is excavated and cannot be returned to its original site, and is known to contain a listed waste, implement the instructions in Section 5.62, *Managing Soil, Groundwater, and Debris Contaminated With a Listed Dangerous Waste*.
12. If the work affected a WIDS site and new information was identified, or a new WIDS site was created, proceed according to the instructions in Section 5.34, *Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts*.
13. Maintain copies of the *Environmental-Activity Screening form* or AJHA, NEPA/SEPA documentation, HCRC and ECR reviews/reports, NOIs, permits, and any other documents according to the instructions in Section 7.0, *Records*.

5.28 Maintaining Stationary Facilities and Equipment That Potentially Emit Radionuclides to the Ambient Air

[Basis: HNF-RD-15332, Section 2.28]

Actionee	Step	Action
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- Responsible 1. Use the following instructions in addition to those found in Section 5.27,

Environmental Protection Processes

Actionee	Step	Action
Manager		<i>Maintaining and Repairing Facilities, Equipment, or Processes - General</i> , when maintaining stationary facilities and equipment that emit radionuclides.

NOTE: Modifications to radioactive airborne emission units exclude routine maintenance, routine repair, and *replacement-in-kind* of routinely changed-out control equipment. See the complete definition of *Modification - Air* for additional detail.

2. Maintain emission sampling systems in a manner consistent with good air pollution control practices for minimizing emissions.
3. Repair or adjust any unavoidable breakdown or malfunction of the emission measurement system as soon as practicable after occurrence.
4. Maintain radioactive air emissions to the environment as low as reasonably achievable during repair and maintenance activities.
5. Notify the *Occurrence Notification Center* (ONC) of any permitted stack ventilation or sampling equipment that is discovered to be delinquent regarding a scheduled periodic calibration or any non-conformance with an applicable technology standard. For example:
 - Delinquent regarding a scheduled periodic aerosol test for HEPA filters,
 - Delinquent regarding a scheduled periodic test or calibration of differential pressure gauges installed as part of the final stage of the environmental filtration/abatement system, or
 - Failure to correctly operate required stack air emissions measurement equipment.

5.29 Maintaining or Repairing Category 1 (Major) Continuous Emissions Monitoring or Emissions Measurement Systems

[Basis: HNF-RD-15332, Section 2.29]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.27</u> , <i>Maintaining and Repairing Facilities, Equipment, or Processes - General</i> and <u>Section 5.28</u> , <i>Maintaining Stationary Facilities and Equipment That Potentially Emit Radionuclides to the Ambient Air</i> , when maintaining or repairing <i>Category 1 (major)</i> continuous emissions monitoring and measurement systems.

NOTE: Modifications to radioactive airborne emission units exclude routine maintenance, routine repair, and *replacement-in-kind* of routinely changed-out control equipment. See the complete

Environmental Protection Processes

Actionee Step

Action

definition of *Modification-Air* in Appendix A for additional detail.

2. Calibrate *emissions measurement* systems at the following times:
 - When first installed,
 - At predetermined intervals, depending on the accuracy requirements and operating conditions; or at least *annually*, and
 - Whenever maintenance or modification could affect equipment calibration.
3. Calibrate and maintain *emissions monitoring* systems according to the requirements of DOE/EH-0173T, Chapter 3.0, Sections 3.3 and 3.5.
 - a. Calibrate *emissions monitoring* systems to meet manufacturer specifications, or those of the Responsible Manager and applicable portions of the ANSI N42.18 standard.
 - b. Consider sampling capabilities, physical and operating limits, and reliability in calibration approaches.

NOTE: System calibration (as described in ANSI N42.18) includes devices in the sample train (flow meter, pressure indicator, volume totalizer, flow alarm switch) necessary for the system to perform its intended function.

- c. Calibrate *emissions monitoring* systems at the following times:
 - Before use, and
 - Whenever maintenance or modification could affect equipment calibration.
 - Recalibrate at predetermined intervals, depending on the accuracy requirements and operating conditions, or at least annually and when first installed.
4. Routinely check *emissions monitoring* equipment with known sources to determine that the equipment is consistently functioning properly.
5. Correct the loss of continuous *emissions monitoring* or measurement capabilities as quickly and efficiently as practicable.
 - a. Take reasonable measurements to ensure the intent of continuous emissions

Environmental Protection Processes

Actionee	Step	Action
		monitoring is met (i.e., responsive indication of abnormal releases) during periods of continuous emissions monitoring system downtime due to maintenance, equipment replacement, or malfunction of required continuous emissions monitoring equipment.
	b.	Minimize continuous emissions monitoring system downtime as a result of scheduled maintenance to the extent practicable.
	c.	Do not use any temporary method to restore emissions monitoring capabilities.
	6.	If required continuous emissions monitoring is lost and cannot be restored within 72 hours, discontinue operations that have the potential to contribute radionuclide air emissions, provided that safe operations can be maintained.
	7.	Ensure that when repairing or maintaining power to an emission monitoring system for Category 1 (major) emission units that the power is from a source that has the same or equivalent emergency capability as the air mover (e.g., fan) for the effluent stream being monitored.

5.30 Maintaining and Testing High Efficiency Particulate Air Filters

[Basis: HNF-RD-15332, Section 2.30]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.27, Maintaining and Repairing Facilities, Equipment, or Processes - General</u> and <u>Section 5.28, Maintaining Stationary Facilities and Equipment That Potentially Emit Radionuclides to the Ambient Air</u> , when maintaining and testing High Efficiency Particulate Air (HEPA) filters.
	2.	Procure and use <i>only</i> HEPA filters designed to remove at least 99.97 percent of test aerosols with a nominal median diameter of 0.3 micron.
	3.	Replace HEPA filters when the pressure drop across the filter exceeds 5 inches water gauge.

NOTE: HEPA filter aging should be recognized as sufficient cause for replacement. Filters subjected to extreme conditions should be considered for more frequent replacement.

4. Perform an in-place particulate filtration efficiency test of on-line effluent filter systems functioning as *abatement technology* at the following times:
 - Before initial *startup* at each location,

Environmental Protection Processes

Actionee	Step	Action
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- After each filter change,
- At least *annually*, and
- Semiannually, quarterly, or monthly, as dictated by the operational requirements of the system (i.e., more frequently for systems that handle high levels of radioactivity and/or are exposed to extreme hostile environments such as high moisture loadings, chemical fumes, or high temperatures).

NOTE: The efficiency test is not required for those systems installed as small, non-testable units with the written concurrence of the Responsible Manager or covered by an approved Notice of Construction.

The term "annual" regarding testing or calibration of required filters or indication devices is defined as no later than within the same month of the following year.

- a. If the unit is a *Category 1 (major) emissions unit*, document the HEPA filter test frequency determination and basis in the Facility Effluent Monitoring Plan or other document.
- b. Use a DOE-approved test aerosol when testing HEPA filters (other than those built in place [e.g., sand filters]).
- c. Test each filter stage required by the emissions filtration and treatment criteria of this section individually.
- d. Test existing multi-stage HEPA filtration systems for which testing of individual stages is precluded by the design.
- e. Test the downstream stage of a set of close-coupled, tandem air filters each time the upstream filter stage is replaced.
- f. Leak test HEPA filters in-place at the operating flow.

NOTE: A HEPA or HEPA-equivalent filter has a minimum installed leakage rate efficiency of 99.95 percent for removal of polydispersed test aerosol with a nominal median diameter of 0.7 micron.

5. Calibrate or functionally test differential pressure (DP) gauges that are installed as part of the final stage of the environmental filtration/abatement system gauges on emission units annually.

Environmental Protection Processes

Actionee	Step	Action
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6. Notify the *Occurrence Notification Center* (ONC) of any HEPA filter required for environmental abatement that is discovered to be:
 - Delinquent regarding a scheduled periodic aerosol test, *or*
 - Delinquent regarding a scheduled periodic test or calibration of DP gauges installed as part of the final stage of the environmental filtration/abatement system.
7. Maintain records of testing and calibration according to the instructions in Section 7.0, Records.

5.31 Starting Up, Shutting Down, or Performing Scheduled Maintenance on Stationary Air Emissions Sources

[Basis: HNF-RD-15332, Section 2.31]

Actionee	Step	Action
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| Responsible Manager | <ol style="list-style-type: none"> 1. Report any excess emissions from the <i>startup, shutdown, or scheduled maintenance</i> to the <i>Occurrence Notification Center</i> (ONC) within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u>. 2. For radioactive emissions sources requiring an EPA-approved NOC application, make the following notifications: <ol style="list-style-type: none"> a. Notify EPA not more than 60 days nor less than 30 days before the anticipated date of initial startup of the emission unit. b. Notify EPA of the actual date of initial startup of the emission unit within 15 days after the initial startup. 3. Notify WDOH at least 7 calendar days before any planned preoperational tests of new or modified radioactive air emission units that involve emission(s) control, monitoring, or containment systems of the emission unit(s). |
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NOTE: WDOH may witness or require preoperational tests.

4. Perform the following when starting up, shutting down, or performing scheduled maintenance on radioactive emission sources, where applicable:

Environmental Protection Processes

Actionee	Step	Action
		<p>a. Determine the flow rate of each point of powered ventilation flow of radioactive air emissions (stack or vent) before startup.</p> <p>b. In accordance with approved FH procedures, perform an in-place particulate filtration efficiency test on on-line effluent filter systems functioning as abatement technology before initial startup at each location.</p> <p>NOTE: HEPA vacuum units operated and tested in accordance with the <u>sitewide NOC</u> for portable units are exempt from the in-place particulate filtration efficiency test before initial startup at each location.</p> <p>c. Operate emission units covered by a sitewide NOC in conformance to the NOC and approval conditions.</p> <p>NOTE: <u>Sitewide NOCs</u> have been approved under state and federal regulations for radioactive air emissions.</p> <p>d. Report to the ONC within 30 minutes any unplanned shutdown, or any <i>transient or abnormal condition</i>, or other change in facility operations, which, if allowed to persist, would result in emissions of radioactive material in excess of applicable standards or license requirements according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u>.</p> <p>e. Account for any period of radioactively contaminated ventilation system startup, shutdown, malfunctions, or any other change that would affect required measurements of airborne emissions of radioactive material to the environment and maintain this information to include with the <i>Annual National Emission Standards for Hazardous Air Pollutants (NESHAPs) Report</i> information.</p> <p>f. Record the date, location, and duration of the release; measured or calculated radionuclide concentrations; the type of radiological air emissions (liquid, gaseous, solid); and the type of emission control and monitoring equipment in a log for the source.</p>
EP Monitoring & Reporting Manager	5.	Include information concerning any period of radioactively contaminated ventilation system startup, shutdown, malfunctions, or any other change that would affect required measurements of airborne emissions of radioactive material to the environment in the <i>Annual NESHAPs Report</i> .

Environmental Protection Processes

Actionee	Step	Action
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NOTE: This requirement addresses equipment of any size involving any radioactive emissions to air resulting from forced airflow, including portable exhaust units. Small hand-held vacuums (i.e., pistol grip type HEPA filtered) are *exempted* from notification.

5.32 Repairing an Onsite Sewage System

[Basis: HNF-RD-15332, Section 2.32]

Actionee	Step	Action
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| Responsible
Manager | <ol style="list-style-type: none"> 1. Use the following instructions in addition to those found in <u>Section 5.27, Maintaining and Repairing Facilities, Equipment, or Processes - General</u>, when repairing a <i>Large Onsite Sewage System (LOSS)</i>. 2. If repairing a LOSS, submit all documents and fees specified under WAC 246-272-08001(2)(a) through (f) to the WDOH, unless WDOH waives submission of some elements as unnecessary. Contact WDOH for approval. |
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5.33 Reporting New Waste Information Data System Sites and Reclassifying or Reassigning Waste Information Data System Sites

[Basis: HNF-RD-15332, Section 2.33]

NOTE: A new site may be entered into the *Waste Information Data System (WIDS)* as: (1) a "discovery site" -- evidence of the potential existence of a waste site, an assessment not yet complete; or (2) an "accepted site" -- an assessment complete enough to determine that the site is a waste management unit as defined in *Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement or TPA)*, Section 3.0. The term "WIDS site" encompasses all WIDS entries regardless of classification type.

For purposes of WIDS site management, four positions are recognized: (1) a Waste Sites Management Program (WSMP) Coordinator, responsible for interfacing with DOE-RL, other Prime Contractors, and FH Project WIDS POCs to address coordination and technical needs; (2) a Project WIDS POC, responsible for interfacing with the WSMP Coordinator and for overseeing WIDS sites assigned to the project; (3) a WIDS Administrator, responsible for administering the WIDS Database; and (4) a WIDS Assignment POC (a member of the Technical Analysis organization), responsible for assigning or re-assigning WIDS sites.

Refer to the following steps for:

- Discovering and assigning a potential new WIDS site: Steps 5.33.3 – 5.33.11.
- Updating the WIDS Database: Steps 5.33.12 – 5.33.13.
- Re-classifying a WIDS site: Steps 5.33.14 – 5.33.15.
- Re-assigning a WIDS site: Steps 5.33.16 – 5.33.20.
- Preparing the *Annual Waste Managements Units Report*: Steps 5.33.21 – 22.

Actionee	Step	Action
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| TPA | 1. Appoint the WSMP Coordinator and the WIDS Administrator. |
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NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

Actionee	Step	Action
Integration Manager		
Responsible Manager	2.	Appoint a Project WIDS POC for his/her respective project.
All Employees	3.	<p><u>Discovering and Assigning a Potential New WIDS Site.</u></p> <p>Upon discovery of a potential new <i>WIDS waste management unit site</i>, contact the discovering employee's <u>Project WIDS POC</u>.</p>
Project WIDS POC	4.	<p>Investigate, document, and report a potential new WIDS site in accordance with <u>TPA-MP-14, Section 5.1, Maintenance of the Waste Information Data System (WIDS) Management Procedure</u>.</p> <p>a. Provide copies of the specified forms to both the WIDS Administrator and the WSMP Coordinator.</p> <p>b. If radioactive contamination exists, proceed through <u>Steps 5.33.5 – 5.33.7</u>. If radioactive contamination does not exist, go to <u>Step 5.33.8</u>.</p>
<p>NOTE: If an imminent health and/or environmental concern is associated with the potential new WIDS site, this concern should be addressed under <u>HNF-PRO-060, Reporting Occurrences and Processing Operations Information</u>. Emergency situations should be handled in accordance with <u>DOE/RL-94-02, Hanford Emergency Management Plan</u>, and <u>DOE-0223, Emergency Plan Implementing Procedures</u>.</p>		
WIDS Assignment POC	5.	If radioactive contamination exists, determine which Project should be responsible for interim management.
	6.	Transmit an internal memorandum to the Project Vice President selected to be responsible for interim site management.
Responsible Project Vice President	7.	Perform interim management until formal assignment of the potential new WIDS site is made (per <u>Steps 5.33.8 through 5.33.10</u>).

NOTE: Interim management includes actions necessary to stabilize an imminent health or environmental threat, as well as, radiological protection functions necessary to protect human health and to prevent the spread of contamination (i.e., periodic environmental surveys, cleanup or posting where applicable, biological control, and access control, but not administrative processes, such as disposition planning).

Environmental Protection Processes

Actionee	Step	Action
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WIDS
Administrator

8. Perform the following:
 - a. Review information submitted on the potential new WIDS site.
 - b. Initiate addition of a newly identified WIDS site into WIDS within 90 days of receiving information, or within a time frame approved by the WSMP Program Coordinator.
 - c. Respond (e.g., e-mail) back to the reporting employee and/or Project WIDS POC within 90 days of receiving the information. Include in this response the name of the new WIDS site, or a rationale as to why a new WIDS site was not created. Copy the WIDS Assignment POC.

WIDS
Assignment
POC

9. Prepare and transmit correspondence to DOE-RL requesting formal assignment of the new WIDS site to either FH or another Prime Contractor. If the recommended assignment is to FH, also recommend which specific Project is to assume management.
10. If a formal response from DOE-RL assigns the new WIDS site to FH, transmit an internal memorandum notifying the specific Project that is to assume formal responsibility for managing the site to the Responsible Project Vice President.

Responsible
Project Vice
President

11. Manage the WIDS site in accordance with Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts. Continue such management until re-assignment of the site is carried out in accordance with Steps 5.33.16 – 5.33.20.

NOTE: The WIDS Database reflects the WIDS site as being formally assigned to a specific FH Project.

Project WIDS
POC

12. Updating the WIDS Database.
 - a. Handle discovery of new information on an existing WIDS site in accordance with TPA-MP-14, Section 5.1 (e.g., complete an *Environmental Site Information form*).
 - b. Provide copies of the specified forms to both the WIDS Administrator and the WSMP Coordinator.
 - c. Ensure new information is provided to the WIDS Administrator at least annually per Step 5.32.21.

Environmental Protection Processes

Actionee	Step	Action
WIDS Administrator	13.	Incorporate new information on an existing WIDS site into the WIDS Database in accordance with <u>TPA-MP-14</u> , Section 5.5.
Responsible Project Manager	14.	<u>Reclassifying a WIDS Site</u> a. Handle reclassification of an "accepted" WIDS site (waste management unit) to "rejected," or "no action," in accordance with <u>TPA-MP-14</u> , Section 5.3. b. Handle reclassification of an "accepted" WIDS site to "closed out" in accordance with <u>TPA-MP-14</u> , Section 5.4.
NOTE: See definitions of "rejected," "no action," and "closed out" in <u>TPA-MP-14</u> , Appendix A.		
WIDS Administrator	15.	Reclassify an existing WIDS site in the WIDS Database in accordance with <u>TPA-MP-14</u> , Section 5.5.
Responsible Project Vice President	16.	<u>Re-assigning a WIDS Site.</u> If a change in assignment of management responsibility is sought (either within FH or to another Prime Contractor), provide a written request to the <u>WIDS Assignment POC</u> with an explanation as to the rationale for the change.
WIDS Assignment POC	17.	Interface with the appropriate FH, DOE-RL, and/or Prime Contractor contacts to coordinate the requested Project change in assignment of management responsibility.
	18.	Prepare and transmit correspondence to DOE-RL requesting formal re-assignment of the WIDS site to another FH Project or to another Prime Contractor.
	19.	If a formal response from DOE-RL re-assigns the WIDS site to another FH Project, or to another Prime Contractor, transmit an internal memorandum notifying the Vice Presidents of the specific Projects that are to relinquish or assume responsibility for the site.
Responsible Project Vice President	20.	Manage the WIDS site in accordance with <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts.</u> Continue such management until re-assignment of the site is carried out in accordance with <u>Steps 5.33.16 – 5.33.19.</u>
Project WIDS POCs	21.	<u>Preparing the Annual Waste Management Units Report.</u>

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> a. Evaluate assigned WIDS sites at least annually. b. Ensure new information is provided to the <u>WIDS Administrator</u> by the end of September (information does not need to be provided for WIDS sites whose status has remained the same [i.e., no WIDS Database fields will be affected]). c. Document this evaluation (e.g., e-mail) by informing the WIDS Administrator that one or more of the following cases apply to the WIDS sites managed by a Project: <ul style="list-style-type: none"> • No change. • Changes have been made over the last year; these changes have already been provided to the WIDS Administrator and incorporated in the WIDS Database • Changes have been made over the last year; these changes have already been provided to the WIDS Administrator, but are not yet reflected in the WIDS Database. • Changes are being provided to the WIDS Administrator in accordance with <u>Steps 5.33.12 and 5.33.13</u> (the specified forms are to be provided to the WIDS Administrator by the end of September).
WIDS Administrator	22.	Generate a <i>Waste Management Units Report</i> in January of each year, and post electronically for regulatory and public access. Include in the report changes made in waste management unit status during the previous year (cut-off date for new information is the end of the preceding September).

5.34 Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts

[Basis: HNF-RD-15332, Section 2.34]

NOTE: For purposes of WIDS site management, four positions are recognized: (1) a Waste Sites Management Program (WSMP) Coordinator, responsible for interfacing with DOE-RL, other Prime Contractors, and FH Project WIDS POCs to address coordination and technical needs; (2) a Project WIDS POC, responsible for interfacing with the WSMP Coordinator and for overseeing WIDS sites assigned to the project; (3) a WIDS Administrator, responsible for administering the WIDS Database; and (4) a WIDS Assignment POC (a member of the Technical Analysis organization), responsible for assigning or re-assigning WIDS sites.

Refer to the following steps for:

- Managing a newly-assigned WIDS site: Steps 5.34.1 – 5.34.7.
- Managing an already-assigned WIDS site: Steps 5.34.8 – 5.34.10.

Environmental Protection Processes

- Evaluating an activity having a potential impact on an assigned WIDS site: Steps 5.34.11 – 5.34.19.

Actionee	Step	Action
Responsible Project Vice President	1.	<u>Managing a Newly-Assigned WIDS Site.</u> Upon assignment and acceptance of a new <i>WIDS waste management unit</i> site, notify the <u>Project WIDS POC.</u>

NOTE: This section only applies to a WIDS site assigned on a long-term basis, not to a site assigned on an interim basis for purposes of radiological control (see Section 5.33, Steps 5.33.5 – 5.33.7.)

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|---------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project WIDS
POC | 2. | Gather and review existing information about the newly-assigned site. |
| | a. | Perform a walk-down of the site to evaluate whether surface information in the WIDS Database and Hanford Site Technical Database (HSTD) is consistent. |
| | b. | Confirm that the location of the site in the Hanford Geographic Information System (HGIS) Database is correct. |
| | c. | Report any discrepancies with the WIDS Database to the WIDS Administrator in accordance with Section 5.33, <u>Steps 5.33.12 and 5.33.13.</u> |
| | d. | Report any discrepancies with the HSTD by processing a Baseline Data Change Request in accordance with <u>HNF-PRO-428, Hanford Site Technical Database Change Control.</u> |
| | e. | Report any discrepancies with the HGIS to the <u>WIDS Administrator.</u> |
| | f. | Provide copies of submittals pertaining to any of these discrepancies to the WSMP Coordinator and to the <u>WIDS Assignment POC.</u> |

NOTE: If an imminent health and/or environmental concern is associated with the potential new WIDS site, this concern should be addressed under HNF-PRO-060, Reporting Occurrences and Processing Operations Information. Emergency situations should be handled in accordance with DOE/RL-94-02, Hanford Emergency Management Plan and DOE-0223, Emergency Plan Implementing Procedures.

3. Conduct a pre-existing condition evaluation, and if applicable, process a Notice of Pre-existing Condition letter through FH Contracts. Seek the assistance of the WSMP Coordinator and the WIDS Assignment POC to prepare this notice.

Environmental Protection Processes**Actionee Step****Action**

NOTE: A "pre-existing condition," per Section I.5 of the PHMC, is any liability, obligation, loss, damage, claim (including without limitation, a claim involving strict or absolute liability), action, suit, civil fine or penalty, cost, expense or disbursement, which may be incurred or imposed, or asserted by any part and arising out of any condition, act or failure to act which occurred before October 1, 1996, in conjunction with the management and operation of the Hanford Site. A pre-existing condition evaluation should be performed as a manner of routine.

4. Using a graded approach, prepare/maintain a management plan for the WIDS site that addresses environmental and other applicable requirements (e.g., radiation protection).
 - a. Include in this plan inspection frequency and whether additional administrative, engineered, or other controls are needed to prevent migration of radioactive or other contaminants from the site.
 - b. For an inactive WIDS site in which isolation has not yet been accomplished, also include specific measures to be taken to preclude an accidental release from/to this site (e.g., locked valve controls).
 - c. Interface with the Effluent & Environmental Monitoring POC and the Biological Control Program POC when developing these controls to capitalize on monitoring and biological control efforts already underway.

NOTE: One, or multiple, management plans, can be developed where a Project has responsibility for more than one WIDS site. Additional controls could include:

- Surface stabilization,
- Vegetation removal,
- Radioactive hot-spot removal,
- Fencing,
- Herbicide and/or pesticide spraying,
- Fixant/sealant application,
- Immediate spill response, *or*
- Other corrective measures.

NOTE: Decisions on the frequency of site inspections, and the type and degree of controls, should be based on the condition of the site. For example, a site that has radiological surface contamination, prone to dispersal through eolian or biological means, would need stricter inspection/control measures than an inactive, isolated underground site. For guidance in the development or modification of Management Plan requirements and inspection frequencies and controls, contact the WSMP Coordinator.

Environmental Protection Processes

Actionee	Step	Action
	5.	If necessary, request funding through a formal baseline change request (BCR), in accordance with <u>HNF-PRO-533, Baseline Change Management</u> , for the cost of risk and hazard assessment, surveillance/monitoring and maintenance, and for any corrective actions required to manage the newly-assigned WIDS site.
	6.	If funding is not approved, notify the <u>WIDS Assignment POC</u> , and be able to demonstrate that funding was requested, but not provided.
WIDS Assignment POC	7.	Interface with DOE-RL to resolve the funding issue and to appropriately document its resolution.
Project WIDS POC	8.	<u>Managing an Already-Assigned WIDS Site.</u> Manage already-assigned WIDS sites in accordance with an established management plan prepared in accordance with <u>Step 5.34.4</u> . Maintain a record of implementation of the management plan(s), as well as supporting information and data used to prepare input to WIDS. Include documentation of measures completed to preclude an accidental release from/to an inactive WIDS site (e.g., isolation of process lines).
	9.	If implementation of the management plan, or other activities, provides information that impacts the graded assessment of a WIDS site, revise the management plan(s), and perform <u>Steps 5.34.5 – 5.34.7</u> , as applicable.
	10.	Submit a change to a WIDS site, or additional information (e.g., obtained through characterization or sampling), to the WIDS Administrator (see Section 5.33, <u>Steps 5.33.13</u> and <u>5.33.21</u>).
Manager Responsible for Activity (i.e., Requesting Manager)	11.	<u>Evaluating an Activity Having a Potential Impact on an Assigned WIDS Site.</u> a. Perform the following steps, as appropriate: <ul style="list-style-type: none"> <u>WIDS Site Managed by FH:</u> Complete <u>Steps 5.34.11 – 5.34.14</u>. Before proceeding with an activity that will potentially impact a FH-managed WIDS site, contact the requesting manager's Project WIDS POC. Provide a brief description of the nature of the activity to this POC. <u>WIDS Site Managed by Another Prime Contractor:</u> Complete <u>Steps 5.34.15–5.34.18</u>.

Environmental Protection Processes

Actionee	Step	Action
Project WIDS POC from Requesting Organization	12.	<p>If the request applies to a WIDS site under the jurisdiction of the requesting organization, evaluate the request and respond in writing (e.g., e-mail) to the requestor, with a rationale as to whether the request is:</p> <ul style="list-style-type: none"> • Concurred with, as requested, • Concurred with, with specified conditions, <i>or</i> • Rejected. <p>a. Send a copy of the response to the WSMP Coordinator.</p>
<p>NOTE: Concurrence should be based on whether the activity will:</p> <ul style="list-style-type: none"> • Create a noncompliance (e.g., air emissions or liquid effluents), • Make the site more difficult to remediate in the future, • Increase or decrease the size of the site, or change the shape of the site, • Change how the site is marked or posted, <i>or</i> • Any other relevant considerations. 		
	13.	<p>If the request applies to a FH-managed WIDS site not under the jurisdiction of the requesting organization, obtain written concurrence from the Cognizant Project WIDS POC as described in Step 5.34.12. Provide a copy to the requestor and to the WSMP Coordinator.</p>
Responsible Manager	14.	<p>Upon the completion of the activity concurred with, evaluate whether the WIDS site has been impacted in such a manner that the WIDS Database needs to be updated in accordance with Section 5.33, Steps <u>5.33.12</u>, <u>5.33.13</u>, and <u>5.33.21</u>.</p>
Manager Responsible for Activity (i.e., Requesting Manager)	15.	<p><u>WIDS Site Managed by Another Prime Contractor:</u></p> <p>Before proceeding with an activity that will potentially impact a WIDS site managed by another Prime Contractor, contact the requesting manager's <u>Project WIDS POC</u>. Provide a brief description of the nature of the activity to this POC.</p>
Project WIDS POC from Requesting Organization	16.	<p>Request written concurrence to proceed with the activity (e.g., e-mail) from the <u>WSMP Coordinator</u>.</p>
WSMP Coordinator	17.	<p>Request written concurrence to proceed with the activity (e.g., e-mail) from the Prime Contractor WIDS POC responsible for managing the WIDS site.</p>

Environmental Protection Processes

Actionee	Step	Action
	18.	Respond in writing (e.g., e-mail) to the Project WIDS POC from the requesting FH organization, with a rationale as to whether the request is: <ul style="list-style-type: none"> • Concurred with, as requested, • Concurred with, with specified conditions, <i>or</i> • Rejected.
	19.	Upon the completion of the activity, work with the <u>Project WIDS POC</u> and <u>Prime Contractor WIDS POC</u> to evaluate whether the WIDS site has been impacted in such a manner that the WIDS Database needs to be updated in accordance with Section 5.33, Steps <u>5.33.12</u> , <u>5.33.13</u> , and <u>5.33.21</u> .

5.35 Servicing Motor Vehicle Air Conditioners

[Basis: HNF-RD-15332, Section 2.35]

Actionee	Step	Action
Responsible Manager	1.	Provide the necessary resources and verify that certified refrigerant <i>technicians</i> and appliance owners establish and implement consistent practices that adhere to the regulatory requirements summarized in this procedure.
	2.	Allow only trained and certified refrigerant technicians that have the proper level/type of certification to maintain, service, or repair Motor Vehicle Air Conditioners (MVACs) containing <i>refrigerants</i> .
NOTE: Refrigerant technicians must be properly trained and certified by an EPA-approved technician certification program pursuant to the regulatory standards established for motor vehicle air conditioning service, repair, and disposal.		
Certified Refrigerant Technician	3.	Provide the service organization with approved recovery/recycling equipment.
	4.	Prevent the knowing release or otherwise venting of any refrigerants.
	5.	Adhere to required good service practices identified in 40 CFR 82 (condensed in HNF-RD-15332, <i>Environmental Protection Requirements</i>) and taught as technician certification training guidance to prevent the release of Class I/II ozone-depleting substances (ODSs) to the atmosphere while maintaining, servicing, or repairing systems containing refrigerants. Contact the <u>Non-Radioactive Air POC</u> to obtain regulatory guidance, if not familiar with the required good service practices identified in 40 CFR 82.
	6.	Use only <i>approved recovery equipment</i> or <i>approved recycling equipment</i> for MVAC service.

Environmental Protection Processes

Actionee	Step	Action
	7.	Recover refrigerant from MVACs to the correct evacuation levels for the appliance type, refrigerant type, and manufacture date of the recovery/recycling equipment.
	8.	For purposes of maintenance, service, or repair of <i>small appliances</i> , recover refrigerant as follows: <ul style="list-style-type: none"> Recover 80% of the refrigerant when using recovery/recycling equipment manufactured before November 15, 1993; <i>or</i> Recover 90% of the refrigerant when using recovery/recycling equipment manufactured after November 15, 1993, when the compressor in the appliance is working, <i>or</i> Recover 80% of the refrigerant when the compressor in the appliance is not working, <i>or</i> Recover refrigerant to an evacuation level of four inches of mercury vacuum.
	9.	Contact the <i>Occurrence Notification Center</i> (ONC) within 30 minutes to report refrigerant leaks according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u> .
	10.	Use service records indicating that the refrigerant was properly recovered, recycled, or containerized for proper disposal. Provide service records to the Responsible Manager.
Responsible Manager	11.	Maintain service records associated with any MVAC service activity and the technician certifications according to the record retention instructions in <u>Section 7.0, Records</u> .
	12.	If a refrigerant is sent offsite for recycling, maintain records onsite of the name and address of any facility to which a refrigerant is sent for recycling according to the instructions in Section 7.0.

5.36 Maintaining, Servicing or Repairing Stationary Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) Equipment

[Basis: HNF-RD-15332, Section 2.36]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.27, Maintaining and Repairing Facilities, Equipment, or Processes – General</u> , when

Environmental Protection Processes

Actionee	Step	Action
		maintaining, servicing, or repairing stationary heating, ventilation, air conditioning, and refrigeration (HVACR) equipment.
	2.	Provide the necessary resources and verify that certified refrigerant <i>technicians</i> and appliance owners establish and implement consistent practices that adhere to the regulatory requirements summarized in this procedure.
	3.	Allow only trained and certified refrigerant technicians having the proper level/type of certification to maintain, service, or repair systems containing <i>refrigerants</i> .
	4.	Use <u>Table 2</u> to determine the proper level/type of training for the specific system or equipment.

Table 2
Ozone Depleting Substance Training

Certification	Appliance Type	General Parameters
Type I	Small Appliance	Manufactured, charged, and hermetically sealed with 5 pounds or less of refrigerant. Includes refrigerators, freezers, room air conditioners, under-the-counter ice makers, vending machines, and drinking water coolers.
Type II	High Pressure Appliance	Uses refrigerant with a boiling point between -50°C (-58°F) and 10°C (50°F) at atmospheric pressure. Includes 12, 22, 114, 500, and 502 refrigerants.
Type II	Very High Pressure Appliance	Uses refrigerants with a boiling point below -50°C (-58°F) at atmospheric pressure. Includes 13 and 503 refrigerants.
Type III	Low Pressure Appliance	Uses refrigerant with a boiling point above 10°C (50°F) at atmospheric pressure. Includes 11, 113 and 123 refrigerants.
Universal	Certified in all the above: Type I, II, III	As described above.
Type II	Motor Vehicle Air Conditioner (MVAC)-like Appliances	Technicians who maintain, service, or repair MVAC-like appliances must either be properly certified as Type II technicians or complete the training and certification test offered by a training and certification program approved under 40 CFR 82.40.

Actionee	Step	Action
Responsible Manager	5.	Provide the certified refrigerant technicians with approved recovery/recycling equipment that is certified by an <i>approved equipment testing organization</i> . Keep

Environmental Protection Processes

Actionee	Step	Action
		at least one <i>self-contained</i> recovery/recycling equipment unit available for use.
Certified Refrigerant Technician	6.	Prevent the knowing release or otherwise venting of any refrigerants.
NOTE: <i>De minimis</i> releases associated with good faith attempts to recycle or recover refrigerants are not subject to this prohibition.		
	7.	Adhere to required good service practices identified in 40 CFR 82 (condensed in HNF-RD-15332) to prevent the release of Class I/II ozone-depleting substances or any other refrigerants to the atmosphere while maintaining, servicing, or repairing systems containing refrigerants. Contact the <u>Non-Radioactive Air POC</u> to obtain regulatory guidance, if not familiar with the required good service practices identified in 40 CFR 82.
Cognizant ECO	8.	Ensure compliance with 40 CFR 82 requirements through review of work orders, preventative maintenance, and maintenance-related tasks on refrigerant-containing appliances.
Certified Refrigerant Technician	9.	Complete applicable service records on the day the service is performed including information relevant to the service. Sign and date service records adjacent to printed name.
	10.	Use only approved recovery equipment or approved recycling equipment for HVACR service. Do <i>not</i> use system-dependent equipment with appliances normally containing more than 15 pounds of refrigerant, unless the system-dependent equipment is permanently attached to the appliance as a pump-out unit.
	11.	If the maintenance, service, or repair is <i>major</i> , perform the following: <ol style="list-style-type: none"> Before opening the appliance, recover refrigerant from it to the correct evacuation levels for the appliance type, refrigerant type, and manufacture date of the EPA-approved recovery/recycling equipment (see <u>Table 3</u>), <i>unless</i> due to leaks in the appliance, evacuation to the levels in Table 3 are not attainable, or would substantially contaminate the refrigerant being recovered, or the recycling/recovery equipment was certified under an approved third-party testing organization satisfactory to the EPA Administrator. Verify and generate a signed statement that the applicable evacuation level has been reached in the appliance or component before it is opened.

Environmental Protection Processes

Actionee Step**Action**

- c. Identify and record the level, the recovery/recycling equipment property identification number, and manufacture date.
12. If the maintenance, service, or repair is not *major*, adhere to the following practices:
- a. Do *not* open a high or very high-pressure appliance unless it is evacuated to a pressure no higher than zero psig before it is opened.
 - b. Do *not* open a low-pressure appliance unless it is pressurized to zero psig before it is opened.
 - c. Do *not* use methods, such as nitrogen (which requires subsequent purging) to pressurize low-pressure appliances that use refrigerants with boiling points at or below 85 degrees Fahrenheit at 29.9 inches of mercury (CFC-11, HCFC-123, for example).
 - d. If pressurizing low pressure appliances that use refrigerants with boiling points above 85 degrees Fahrenheit at 29.9 inches of mercury (for example, CFC-113), use heat to raise the internal pressure of the appliance as much as possible; nitrogen may be used to raise the internal pressure of the appliance from the level attainable through the use of heat to atmospheric pressure.
 - e. For purposes of oil changes, evacuate or pressurize the appliance to a pressure no higher than 5 psig before it is opened, or drain the oil into a system receiver to be evacuated or pressurized to a pressure no higher than 5 psig.
 - f. If, due to leaks, the required levels of evacuation are not attainable or would substantially contaminate the refrigerant being recovered in the appliance or component; isolate leaking from non-leaking components wherever possible, and evacuate non-leaking components to the levels specified in Table 3, and evacuate leaking components to the lowest level that can be attained without substantially contaminating the refrigerant.
1. In no case allow the level to exceed 0 psig.

Table 3

Required Levels of Evacuation for Air Conditioning,
Refrigeration, and Recovery/Recycling Equipment

In Inches of Vacuum (Relative to Standard Atmospheric Pressure of 29.9 Inches Mercury)

Type of Appliance	Using recovery or recycling equipment manufactured or imported -
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NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

	Before 11/15/1993	On or after 11/15/1993
HCFC-22 appliance, or isolated component of such appliance, normally containing less than 200 pounds of refrigerant.	0	0
HCFC-22 appliance, or isolated component of such appliance, normally containing 200 pounds or more of refrigerant.	4	10
Other high-pressure appliance, or isolated component of such appliance, normally containing less than 200 pounds of refrigerant.	4	10
Other high-pressure appliance, or isolated component of such appliance, normally containing 200 pounds or more of refrigerant.	4	15
Very high pressure appliance.	0	0
Low-pressure appliance.	25	25 mm mercury absolute

Actionee	Step	Action
Certified Refrigerant Technician	g.	For purposes of maintenance, service, or repair of <i>small appliances</i> , recover refrigerant as follows: <ol style="list-style-type: none"> 1. Recover 80% of the refrigerant when using recovery/recycling equipment manufactured on or before November 15, 1993, <i>or</i> 2. Recover 90% of the refrigerant when using recovery/recycling equipment manufactured after November 15, 1993, when the compressor in the appliance is working, <i>or</i> 3. Recover 80% of the refrigerant when the compressor in the appliance is not working, <i>or</i> 4. Recover refrigerant to an evacuation level of four inches of mercury vacuum.
	h.	Verify and generate a signed statement that the applicable level of evacuation has been reached in the appliance or component before it is opened.
	i.	Identify and record the evacuation level, the recovery/recycling equipment property identification number, and manufacture date.
	13.	Provide the owner/operator of the appliance containing greater than 50 pounds

Environmental Protection Processes

Actionee	Step	Action
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normal charge of refrigerant with a service record indicating the amount of any refrigerant added to the appliance including the date the refrigerant was added.

- a. For appliances containing greater than 50 pounds normal charge of refrigerant, perform a leak rate calculation upon the addition of any refrigerant to the system or upon the discovery of any loss of refrigerant from the system.
- b. In the case where a quantity of refrigerant leaked from the appliance, but no net refrigerant was added after discovering the leak, perform a leak rate calculation based on the quantity determined to have leaked.
 1. Report this value as a *release* to the *Occurrence Notification Center (ONC)* within 30 minutes according to the instructions in *Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances*.

NOTE: The leak rate calculation must be performed promptly in order to facilitate leak repair completion within 30 days from the time the leak was discovered. Only the "net" refrigerant added as a result of system leaks and losses needs to be calculated as refrigerant added. For example, system refrigerant that is recovered/recycled/returned does not figure into the calculation, only the additional refrigerant added to "top off" the charge.

- c. If purged refrigerants that are destroyed are to be excluded from leak rate calculations, maintain records to support the amount of refrigerant claimed as sent for destruction.
 1. Base records on a monitoring strategy that provides reliable data to demonstrate that the amount of refrigerant claimed as destroyed is not greater than the amount of refrigerant actually purged and destroyed, and that the 98% or greater destruction efficiency is met.
 2. Include the flow rate, quantity, or concentration of the refrigerant in the vent stream, and periods of purge flow.
 3. Contact the *Cognizant ECO* for regulatory guidance.
- d. If the leak rate exceeds 35% for *commercial or industrial* cooling systems or 15% for *comfort-cooling* systems, repair the leak to below the applicable leak rate within 30 *calendar days* of discovering the leak or within 30 calendar days after when the leak should have been discovered and document repair activities.
- e. If the leak is repaired within the required 30 calendar days, perform the

Environmental Protection Processes

Actionee	Step	Action
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following and record test parameters:

NOTE: Air Conditioning Contractors of America identifies six methods in the *Refrigerant Transition and Recovery Certification Program for HVACR Technicians*:

1. Soap Bubble,
2. Electronic Halide Leak Detectors,
3. Ultrasonic Leak Detectors,
4. Halide Torch Detector,
5. Standing Pressure, and
6. Standing Vacuum Test.

1. Perform an *initial verification test* upon repair of the appliance and within the 30 calendar day allowable time period.

2. Perform a *follow-up verification test* within 30 calendar days of the initial verification test.

f. If the leak cannot be repaired within 30 calendar days, contact the Responsible Manager promptly in order to facilitate the preparation of the required EPA report(s) or requests for additional repair time.

14. If a leak from an appliance containing greater than 50 pounds normal charge of any refrigerant cannot be repaired within 30 calendar days from discovering the leak or within 30 calendar days after when the leak should have been discovered, perform the following:

NOTE: The following actions must be taken promptly to facilitate timely correspondence with the EPA.

- a. Contact the Cognizant ECO for further regulatory guidance for preparing a request for an extension to the required 30-day repair for a federally owned system, *or*
- b. *Moth-ball* the system according to the definition of system moth-ball, develop a record of parameters associated with system moth-ball, and contact the Cognizant ECO for further regulatory guidance, *or*
- c. Contact the Cognizant ECO for further regulatory guidance for preparing a retrofit/replacement or retirement plan for submittal to the EPA before the 30 calendar days is exceeded.

1. Prepare preliminary reporting information including:

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none">- Facility identification,- Leak rate,- Method used to determine the leak rate and full charge,- Date the leak rate of greater than the allowable leak rate was discovered,- Location of the leak(s) to the extent determined to date,- Any repair work that has been completed thus far and the date that work was completed,- Reason why more than 30 days are needed to complete the work if applicable,- Estimate of when repair work will be completed, and- Retrofit, replacement, or retirement plans if applicable.
		<p>2. If any change develops from the estimated date, document and contact the <u>Cognizant ECO</u> to submit to the EPA the reason for those changes within 30 calendar days of discovering the need for such change.</p> <p>3. Provide to the Cognizant ECO within 2 weeks, test results and records indicating the dates and types of initial and follow-up verification tests performed for submittal to the EPA within 30 calendar days of the test.</p> <p>4. Contact the Cognizant ECO to submit to the EPA the appropriate notifications and retrofit/replacement or retirement plans after a failed follow-up verification test associated with these actions.</p> <p>5. Maintain test results and records indicating the dates and types of initial and follow-up verification tests performed according to the instructions in <u>Section 7.0, Records</u>.</p>
Cognizant ECO	15.	<p>Contact the <u>Non-Radioactive Air POC</u> for regulatory guidance concerning actions taken when an appliance cannot be repaired within 30 days.</p> <p>a. Prepare repair extension requests or retrofit/replacement or retirement plans according to the <u>Non-Radioactive Air POC</u> instructions in a timely manner that supports regulatory-driven time periods.</p> <p>b. Transmit the repair extension request/information or retrofit/replacement or retirement plans and reports to the EPA.</p>

Environmental Protection Processes

Actionee	Step	Action
		c. Maintain copies of transmittal letters, and the repair extension request/information or retrofit/replacement or retirement plans and reports according to the instructions in <u>Section 7.0, Records</u> .
Responsible Manager	16.	Facilitate repairing the system to the schedule identified in the extension or retrofit/replacement plan. <ul style="list-style-type: none"> a. Perform an initial verification test upon repair of the appliance, and provide each test result to the <u>Cognizant ECO</u> within two weeks for submittal to the EPA within 30 calendar days of the test. b. Perform a follow-up verification test within 30 calendar days of the initial verification test, and provide each test result to the Cognizant ECO within two weeks for submittal to the EPA within 30 calendar days of the test. <ul style="list-style-type: none"> 1. Contact the Cognizant ECO and the Responsible Manager to submit to the EPA the appropriate notifications and retrofit/replacement or retirement plans after a failed follow-up verification test associated with these actions. c. Maintain test results and records indicating the dates and types of initial and follow-up verification tests performed according to the instructions in <u>Section 7.0, Records</u>.
	17.	Contact the <u>Cognizant ECO</u> and/or the <u>Non-Radioactive Air POC</u> for regulatory guidance for actions taken when an appliance cannot be repaired within 30 calendar days.
	18.	Report refrigerant leaks to the <u>Occurrence Notification Center (ONC)</u> within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u> .
Certified Refrigerant Technician	19.	Use service records indicating that the refrigerant was properly added, recovered, recycled, or containerized for disposition. <ul style="list-style-type: none"> a. Include service dates, evacuation levels, quantity added (by recycling or as new), recovery/recycling equipment identification and manufacture date, and receiving cylinder identification. b. Ensure applicable sections of the service record are legible and complete.

Environmental Protection Processes

Actionee	Step	Action
Responsible Manager	20.	Provide physical inventories of hazardous chemicals stored in locations under the control of the applicable organizations to the <u>Emergency Planning and Community Right-to-Know Act (EPCRA) Reporting POC</u> as described in <u>Section 5.23, Using and Storing Chemicals, Chemical Products, and Hazardous Materials</u> .
	21.	Maintain service records associated with any refrigeration appliance service activity according to the instructions in <u>Section 7.0, Records</u> . <ol style="list-style-type: none"> Maintain legible records for appliances indicating any of the following: <ul style="list-style-type: none"> Appliance identification, location, refrigerant type, and quantity. Service, preventative maintenance, or repair records, including associated dates the activities are performed. Records that demonstrate refrigerant purchase (including type, quantity, and technician certification), and/or usage (including type, quantity recovered, recycled, or added, and associated dates). Servicing technician and certification type performing any refrigeration maintenance, service, repair, or recovery for disposal on any service record generated. Technician identification, verification statement, and signature of refrigerant evacuation to the required level upon the planned inactivation/disposal of an appliance.

NOTE: All records are maintained on-site and represent the dates any actions are performed on HVACR systems regulated by the requirements of 40 CFR 82.

- In addition to the records identified in the section above, maintain legible records for appliances containing greater than or equal to 50 pounds normal charge indicating any of the following:
 - Calculations (and supporting information) for leak rates.
 - The following information (maintained onsite), the first time an owner or operator chooses to exclude purged refrigerants (that are destroyed) from leak rate calculations:
 - Facility identification,
 - Contact person (address and phone number),
 - General description of refrigeration appliance relevant to refrigerant

Environmental Protection Processes

Actionee	Step	Action
		<p>purging and subsequent destruction,</p> <ul style="list-style-type: none"> ▪ Description of methods used to determine the quantity of refrigerant sent for destruction, ▪ Frequency of monitoring and date-recording, ▪ Description of the control device, and ▪ Destruction efficiency. <ul style="list-style-type: none"> - Calculations (and supporting information) for full charge. - Initial and follow-up verification testing and supporting information (within the required 30-day time periods, and including supporting parameters that demonstrate leak repair to less than maximum allowable rates). - Records that demonstrate leak repair completion including associated dates an activity is performed. - All service preventative maintenance, repair, or disposition records. - Records of usage (including refrigerant type, quantity purchased, quantity recovered, recycled, or added, and associated dates). - Appliance disposition (system moth-balling, system upgrades, system shut-down, disposal) including dates, status of refrigerant and supporting parameters. - Service technician identification and type of certification (I, II, III, or universal). - Refrigerant evacuation levels (including equipment identification and manufacture date of recovery/recycling).

5.37 Performing Activities That May Break Up, Disturb, or Block Access to Regulated Asbestos-Containing Material

[Basis: HNF-RD-15332, Section 2.37]

Actionee	Step	Action
Responsible Manager	1. Contact the Asbestos POC to:	<ul style="list-style-type: none"> ▪ Review facility records to determine if the activity is in an area of the facility previously determined by a Washington State-Certified Asbestos Inspector, or otherwise documented, to contain <i>regulated asbestos-containing material</i> (RACM), or

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> Obtain a Washington State-Certified Asbestos Inspector to determine whether the activity will break up, dislodge, disturb, or remove RACM, or block access to RACM in such a way that it would preclude subsequent removal.
	2.	If the action is to actually remove asbestos containing material, follow the instructions in <u>Section 5.38, Removing Asbestos-Containing Material (i.e., Renovation)</u> .
Asbestos POC	3.	Determine with the inspector whether the activity will break up, dislodge, disturb, or remove RACM, or whether it will block access to it in such a way that it would preclude subsequent removal. <ul style="list-style-type: none"> If the activity will block access to RACM in such a way that it would preclude subsequent removal, or if the activity will break up, dislodge, disturb, or remove RACM, identify and document the actions needed to remove and dispose of the RACM before the activity begins.
	4.	Remove RACM according to the instructions in <u>Section 5.38</u> .

5.38 Removing Asbestos-Containing Material (i.e., Renovation)

[Basis: HNF-RD-15332, Section 2.38]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions when removing asbestos-containing material, in addition to those found in: <p><u>Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) – General,</u></p> <p><u>Section 5.27, Maintaining and Repairing Facilities, Equipment, or Processes – General, or</u></p> <p><u>Section 5.43, Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes – General.</u></p>
Responsible Manager	2.	If a Washington State-Certified Asbestos Inspector has not already inspected the work location to determine whether the activity will break up, dislodge, disturb, or remove <i>regulated asbestos-containing material</i> (RACM), or block access to RACM in such a way that it would preclude subsequent removal, contact the Asbestos POC.
Asbestos	a.	Have a Washington State-Certified Asbestos Inspector determine the types and

Environmental Protection Processes

Actionee	Step	Action
POC		<p>quantities of asbestos present.</p> <ol style="list-style-type: none">1. Based on the type and quantity of RACM to be removed, determine the applicable notification requirements from 40 CFR 61.145.2. Check facility listing and the scope of activities against the pre-approved annual Notification of Intent (NOI) for facilities already covered under an approved NOI.3. If work involves removing or demolishing a <i>load-bearing structural member</i>, or the combined amount of RACM to be disturbed is above Benton Clean Air Authority (BCAA) threshold values (3.05 linear meters [10 linear feet] on piping or 4.46 square meters [48 square feet] on other facility components) perform the following:<ol style="list-style-type: none">a. Prepare and submit an <i>Individual NOI form</i> to the BCAA on the form provided by the BCAA.b. Attach the <i>Hanford Addendum to the NOI form</i> (Site Form A-6002-551) that completes the notification requirements of 40 CFR 61, Subpart M (see Figure 2 on the EP website), which contains the following.<ol style="list-style-type: none">1. Section V of the BCAA form asks for start and completion dates of removal, which meet the requirement of 40 CFR 61.145(b)(4)(viii). Provide the scheduled start and completion dates of the actual demolition or renovation work to satisfy the requirement of 40 CFR 61.145(b)(4)(ix).2. In Section V under "Method of Removal and Work Plan Specifications," provide a description of both the demolition or renovation work to be performed as well as a description of the methods for removing the asbestos and controlling emissions to satisfy the requirements of 40 CFR 61.145(b)(4)(x) and (xi).3. In Section VI, include the location of the disposal site with the name to satisfy 40 CFR 61.145(b)(4)(xii).c. Submit or deliver the completed NOI so it is received by the BCAA at least 10 working days before commencement of the renovation or demolition activities.<ol style="list-style-type: none">1. Send a hard copy to the <u>EP Program Services Asbestos Program Manager</u>.2. Maintain the original BCAA-signed NOI in the facility/project files.d. If the actual start date will be earlier than stated in the original NOI, submit an amended NOI at least 10 working days before commencing work.

Environmental Protection Processes

Actionee	Step	Action
		<p>e. If the actual start date will be later than stated in the original NOI, notify the BCAA of the new start date by telephone as soon as possible before the original start date, and submit an amended NOI with a written notice of the new start date as soon as possible before, and no later than, the original start date.</p> <p>f. Contact the POC for <u>HNF-RD-15097, Asbestos Control - Construction Industry</u>, and <u>HNF-RD-15245, Asbestos Control - General Industry</u>, for additional worker protection requirements for asbestos removal.</p>
EP Program Services Asbestos Program Manager	4.	Maintain asbestos renovation/demolition NOI tracking table and provide BCAA billing invoice verification for payment authorization by DOE-RL.
Asbestos POC	5.	<p>Perform the following in the event of an emergency renovation operation involving an amount of RACM that exceeds the threshold limits:</p> <p>a. Complete an <i>Emergency Waiver Request form</i> (by contacting the <u>EP Program Services Asbestos Program Manager</u>), and attach it to the front of a completed NOI form for the proposed action.</p> <p>b. Submit the two forms to the BCAA for approval.</p>
<p>NOTE: Upon receipt of a completed <i>Emergency Waiver Request form</i>, the BCAA reviews the requirement for advance notification of 10 working days, and if the inspector concurs, BCAA signs the waiver, based on the emergency justification provided therein.</p>		
Responsible Manager	6.	Perform demolition and renovation projects involving RACM in accordance with 40 CFR 61.145.
<p>NOTE: Asbestos work should be coordinated with OSH to ensure the renovation or removal is conducted in accordance with applicable worker protection requirements.</p> <p>a. Ensure that an asbestos foreman, a management-level person, or other authorized representative is present at the <i>asbestos renovation</i> or demolition site that is trained in the provisions of 10 CFR 61.145 and the means of complying with them before RACM is stripped, removed, or otherwise handled or disturbed.</p> <p>b. Ensure that evidence that required training has been completed is posted and</p>		

Environmental Protection Processes

Actionee	Step	Action
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made available for inspection by the EPA at the demolition or renovation.

- c. Ensure that the stripping and removal described in the notification are performed according to the dates and methods identified in the notification.

- Do *not* discharge visible emissions to the outside air during the collection, packaging or transport of RACM.
- Adequately wet RACM during stripping and removal unless an alternate method described in 40 CFR 61.145 and 40 CFR 61.150 is used.

- d. Submit an amendment to the NOI when the estimated amount of RACM that will be disturbed changes by more than 20 percent.

1. Stop work until the amended NOI is submitted to the BCAA.

- e. Ensure RACM is adequately wet when it is packaged for disposal (unless an alternate method in 40 CFR 61.150 is used), and ensure that it is packaged, sealed in leak-tight containers or put into leak-tight wrapping, and visibly labeled.

- Label containers of RACM and wrapped materials using warning labels specified in 29 CFR 1910.1001(j)(4)(i) and (ii) or 1926.1101(k)(8).
- Label RACM for transport off the facility with the name of the generator and the location where the waste was generated.

7. Arrange for the removal of containers of RACM waste or wrapped RACM waste as soon as practical.

- a. Prepare the asbestos waste shipment records (40 CFR 61.150(d)).

- b. Provide a copy of the asbestos waste shipment record to the disposal facility at the time the RACM is delivered to the waste disposal site.

8. Maintain records of the asbestos renovation or removal according to the instructions in Section 7.0, Records.

Environmental Protection Processes

5.39 Repairing Regulated Underground Storage Tanks

[Basis: HNF-RD-15332, Section 2.39]

NOTE: This section does not apply to the following underground storage tank (UST) systems:

- Tanks with less than 10% of their volume below the ground.
- UST systems holding hazardous wastes subject to Subtitle C of the *Federal Solid Waste Disposal Act*, or a mixture of such hazardous wastes and other regulated substances.
- Wastewater treatment tank systems that are part of a wastewater treatment facility regulated under Section 402 or 307(b) of the *Clean Water Act*.
- Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.
- UST systems whose capacity is 110 gallons or less.
- UST systems that have never contained more than a de minimis concentration of *regulated substances*.
- Emergency spill or overflow containment UST systems that are expeditiously emptied after use.
- UST systems used for storing heating oil for consumptive use on the premises where stored; except that such systems which store in excess of 1,100 gallons are subject to the release reporting requirements of WAC 173-360-372.
- Septic tanks.
- Surface impoundments, pits, ponds, or lagoons.
- Storm water or wastewater collection systems.
- Flow-through process tanks.
- Storage tanks situated in an underground area (such as a basement, cellar, vault, or tunnel) if the storage tanks are situated upon or above the surface of the floor.
- Wastewater treatment tank systems not regulated under section 307(b) or 402 of the *Clean Water Act*.
- UST systems containing radioactive material that are regulated under the *Atomic Energy Act* (42 USC 2011).
- UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR 50, Appendix A.
- UST systems with field-constructed tanks.

Environmental Protection Processes

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.27, Maintaining and Repairing Facilities, Equipment, or Processes – General</u> , when repairing regulated underground storage tanks.
	2.	Perform repairs to UST systems or to cathodic protection systems according to WAC 173-360-325 using a Certified UST Supervisor. Have the Certified UST Supervisor sign the Certified Supervisor's checklist(s) provided by the Washington State Department of Ecology (Ecology).
	3.	Within 30 days following the date of the completion of the repair, tightness test the tank and piping in accordance with WAC 173-360-345 (6)(d) and WAC 173-360-350 (3)(b) except if: <ul style="list-style-type: none">• The repaired tank is internally inspected in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; or• The repaired portion of the UST system is monitored monthly for releases in accordance with a method specified in WAC 173-360-345 (6)(e) through (j); or• Another test method is used that is approved by Ecology.
	4.	Report <i>spills</i> or <i>releases</i> , or unusual operating conditions (see WAC 173-360-360) to the <i>Occurrence Notification Center</i> (ONC) within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u> . <ul style="list-style-type: none">• If a confirmed release occurs, within twenty-four hours of having knowledge of the release, lock the fill pipe and remove from display the permit for the tank from which the release has occurred.
	5.	Maintain UST system records according to the instructions in <u>Section 7.0, Records</u> , and WAC 173-360-210, and in compliance with applicable requirements of WAC 173-360-330 through WAC-173-360-355. <ul style="list-style-type: none">• Keep UST information either at the UST site and immediately available for inspection by Ecology, or at a readily available alternative site for inspection.<ul style="list-style-type: none">- Documentation of UST system repairs (WAC 173-360-325(7)) for the remaining operating life of the UST site that demonstrates compliance with the requirements of WAC 173-360.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> - The results of any sampling, testing, or monitoring, except that the results of tank tightness testing conducted in accordance with WAC 173-360-345. - Written documentation of calibration, maintenance, and repair of release detection equipment permanently located on-site.

5.40 Applying and Storing Pesticides

[Basis: HNF-RD-15332, Section 2.40]

Actionee	Step	Action
Radiation Protection Manager	1.	Maintain at least one company employee that is technically competent in the State of Washington and Federal pesticide regulations to oversee the acquisition and procurement of pesticides and pesticide application services. Ensure that the worker protection standards (WAC 16-233) are met.
Responsible Manager	2.	Use <i>only</i> a certified commercial pesticide applicator licensed by the State of Washington Department of Agriculture to apply pesticides listed in WAC 16-228 and any EPA restricted-use pesticides (refer to 40 CFR 152.175) not listed in WAC 16-228. (See the procurement instructions in <u>Section 5.53, Procuring Pesticides or Pesticide Applicators.</u>)
Hanford Fire Department	3.	Maintain an inventory of pesticide storage areas, including pesticide type and quantity.

5.41 Conducting Open Burning

[Basis: HNF-RD-15332, Section 2.41]

Actionee	Step	Action
Responsible Manager	1.	<p>Obtain a written burn permit from the Benton Clean Air Authority (BCAA) before performing any open burning onsite (except for windblown tumbleweeds).</p> <ul style="list-style-type: none"> a. Perform opening burning only during burn hours, as allocated by the BCAA. b. Contact the BCAA via the burn-message telephone line (946-4489) to obtain daily "burn" or "no-burn" information. c. Obtain a separate permit from the Hanford Fire Department (HFD) (contact the HFD at the number provided on the Hanford PopFon). d. Contact the HFD before burning for permission to burn (based on meteorological conditions and site preparations).
	2.	<p>Do not burn any of the following materials in any open fire unless specific permission is obtained from the BCAA:</p> <ul style="list-style-type: none"> • Garbage.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> • Dead animals. • Asphaltic products. • Waste petroleum products. • Paints. • Rubber products. • Plastics. • Cardboard. • Treated wood. • Construction debris. • Metal. • Paper (other than what is necessary to start a fire). • Any substance, other than natural vegetation, that normally emits toxic emissions, dense smoke, or obnoxious odors.
	3.	Do not dispose of any radioactive contaminated material via open burning.
	4.	Before demolishing any building, structure, or vessel by intentional burning, either for demolition or for fire training, perform the following: <ul style="list-style-type: none"> a. Obtain a permit from the BCAA at least 5 working days before the proposed activity. b. Ensure the application fees are billed directly to DOE-RL by the BCAA.
	5.	Before demolishing any building, structure, or vessel by intentional burning, contact the Asbestos POC to determine if the activity requires submittal of a Notification of Intent (NOI) to the BCAA. <ul style="list-style-type: none"> a. Contact the <u>Cognizant ECO</u> to determine the Project's/facility's Asbestos POC.
Asbestos POC		<ul style="list-style-type: none"> b. Have a Washington State-Certified Asbestos Inspector determine the types and quantities of asbestos present.

Environmental Protection Processes

Actionee	Step	Action
		<ol style="list-style-type: none"> 1. From information obtained, determine which notification requirements apply, if any. 2. Check facility listing and the scope of activities against the pre-approved <i>Annual Asbestos NOI</i> for facilities already covered under an approved NOI. c. If a facility is demolished by intentional burning, remove all RACM, including Category I and Category II nonfriable Asbestos Containing Material, in accordance with the <i>National Emission Standards for Hazardous Air Pollutants</i> before burning. Remove RACM according to the instructions in <u>Section 5.38, Removing Asbestos-Containing Material (i.e., Renovation)</u>, in addition to the instructions in this section.

5.42 Decontaminating Materials and Equipment Contaminated With Polychlorinated Biphenyls [Basis: HNF-RD-15332, Section 2.42]

Actionee	Step	Action
Responsible Manager	1.	Decontaminate materials and equipment contaminated with PCBs in accordance with 40 CFR 761.79. Use the <u>DOE/RL-2001-50, Toxic Substances Control Act (TSCA) Polychlorinated Biphenyls Hanford Site Users Guide</u> , Section 7.2, <i>Decontamination Standards and Procedures</i> , for guidance on decontaminating PCB-contaminated materials.

NOTE: PCBs and PCB Items which are decontaminated according to 40 CFR 761.79, or already meet the decontamination standards listed in 40 CFR 761.79, can be: (1) used without applying the decontamination requirements (per 40 CFR 761.30(u)); (2) distributed in commerce (per 40 CFR 761.20(c)(5)(ii)) without further decontamination; or (3) disposed of as non-TSCA regulated.

2. For liquids, concrete, and non-porous surfaces, decontaminate by separating them from PCBs using a method listed in 40 CFR 761.79(b) and meeting the decontamination standards specified in that section of the regulations.
3.
 - a. For containers, movable equipment, non-porous surfaces in contact with free flowing mineral dielectric fluid, piping and airlines in an air compressor, and metal surfaces (using thermal processes), decontaminate using the specific self-implementing decontamination procedures provided in 40 CFR 761.79(c).
 - b. If alternate decontamination procedures are needed, or for instructions to decontaminate materials not listed above, contact the TSCA/PCBs POC to assist with obtaining EPA approval.

NOTE: Additional requirements are placed on choice of solvents, control of releases, recordkeeping, and management of waste and residues.

4. Manage wastes generated during the course of decontaminating materials and

Environmental Protection Processes

Actionee	Step	Action
		equipment according to 40 CFR 761.79(g), <u>Section 5.57, Generating Waste</u> , and <u>Section 5.58, Identifying and Designating Waste</u> , as appropriate.

5. Document decontamination before placing equipment back into service. Maintain a record documenting that equipment has been decontaminated before being placed back into service according to the instructions in Section 7.0, Records.

5.43 Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes -- General [Basis: HNF-RD-15332, Section 2.43]

NOTE: This section does not apply to actions taken under the *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*. (See Section 5.50.)

Actionee	Step	Action
Responsible Manager	1. Before starting any of the following:	<ul style="list-style-type: none"> • Closing a facility, equipment, or process, • Deactivating, decontaminating, or dismantling any stationary air emissions source in order that the reduction in air pollutants can be tracked and potentially banked for future permitting purposes, • Discontinuing use of a radionuclide emission source, • Deactivating, decommissioning, and decontaminating a facility, building, or trailer, • Deactivating or dismantling power lines, communication lines, and substations, • Discontinuing use of a process, or equipment that changes a process, <p>or</p> <p>Before entering into binding contracts to complete any part of one of the above or procuring goods or services for one of the above, have qualified personnel complete an <i>Environmental-Activity Screening form</i> (Site Form A-6003-727).</p>

NOTE: Individual(s) responsible for initially filling out an *Environmental-Activity Screening form* must be a *Cognizant ECO* or have a minimum of 2 hours of NEPA on-the-job training (provided and/or approved by the EP Director).

The *NEPA Screening form* (Site Form A-6001-497) can be used in lieu of the *Environmental-Activity Screening form* for 90 days after the publication of this procedure. The 90-day phase-in period will enable usage-orientation sessions to take place for the *Environmental-Activity Screening form*. The content of the *NEPA Screening form* has been incorporated into the

Environmental Protection Processes

Actionee	Step	Action
		<i>Environmental-Activity Screening form.</i>

EXCEPTION: "No planning required" work activities as defined in HNF-12115, Work Management, or within facility implementing procedures is pre-screened for NEPA applicability and other environmental requirements and does *not* require use of the *NEPA Screening form* or the *Environmental-Activity Screening form*.

- | | |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cognizant
ECO (or
Other
NEPA-
Trained
Individual) | <p>2. Complete the <i>Environmental-Activity Screening form</i> (according to the instructions in <u>Section 5.1</u>) to determine if the proposed <i>project</i> is covered by existing:</p> <ul style="list-style-type: none"> • NEPA or <i>State Environmental Policy Act</i> (SEPA) documentation. • <i>Hanford Cultural Resources Compliance Review</i> (HCRC) or <i>Ecological Compliance Resources Review</i> (ECR) approvals. • Permits, approvals, and/or other environmental requirements and documentation. |
| Cognizant
ECO | <p>3. Review the results of Step 5.43.2, or request that the <u><i>Environmental-Activity Screening Form POC</i></u> review these results. Assess for the following:</p> <p>a. Determine if NEPA or SEPA coverage is sufficient; if not, address the NEPA/SEPA according to the instructions in HNF-PRO-15335, <i>Environmental Permitting and Documentation Preparation</i>, Section 5.1, <i>Performing Environmental Reviews and Preparing National Environmental Policy Act Documentation</i>.</p> <p>b. Determine if HCRC and/or ECR coverage is sufficient; if not, address these reviews according to the instructions in HNF-PRO-15335, Section 5.1.</p> <p>c. Determine if other environmental permits, approvals, or documentation are required to proceed with the project.</p> <ul style="list-style-type: none"> • If deactivating, decontaminating, dismantling, or closing facilities (including trailers), equipment, and processes involves a radionuclide air emissions source and will constitute a new or modified source of emissions, include preparation of a <i>Notice of Construction</i> (NOC), as applicable, in accordance with WAC 246-247-060. • Include preparation of a closure report whenever operations producing emissions of radioactive material from a registered emission unit will permanently cease (except from temporary emission units). |

Environmental Protection Processes

Actionee	Step	Action
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NOTE: By definition, decommissioning or dismantling a radioactive-contaminated facility constitutes a modification requiring a radioactive air emissions NOC approval by the WDOH. (See definition of *modification-air*.)

- d. On the *Environmental-Activity Screening form* complete Sections C (Work Management Applicability) and D (Approvals).

4. Provide the Responsible Manager with documentation (e.g., e-mail) of the results of the environmental review, and the anticipated timeframe needed to complete any required environmental actions (e.g., obtain/modify permits, obtain approvals, complete other environmental documentation). Assist the Responsible Manager to complete these actions.

Responsible
Manager

5. If the work requires the preparation of a NOC or closure report, request the Cognizant ECO to prepare such documentation.

Cognizant
ECO

- a. Prepare, or request EP to prepare, the required NOC or closure report.
- b. Prepare the NOC according to the instructions in HNF-PRO-15335, Section 5.3, *Permitting Radioactive Air Emissions Sources*.
- c. Obtain a copy of the closure report format from the Radioactive Air POC.
- Describe in the report the planned configuration of the *abatement technology* and indicate whether, despite cessation of operations, there is still a potential for radionuclide air emissions and/or a need for an active or passive ventilation system with emission control and associated *periodic confirmatory measurement*.
 - Submit the final report to DOE-RL for subsequent transmittal to WDOH.
 - Notify the Radioactive Air POC in parallel with the submittal of the report of closure of an air emissions source.

Responsible
Manager

6. Before starting any demolition or renovation activities, including removing or demolishing a *load-bearing structural member*, contact the Cognizant Asbestos POC to determine if the activities require submittal of a Notification of Intent (NOI) to the Benton Clean Air Authority (BCAA). [See Section 5.38, Removing Asbestos-Containing Material (i.e., Renovation)], in addition to the instructions in this section. Contact the Cognizant ECO if uncertain who the Cognizant Asbestos POC is for the project and/or facility.

Asbestos

- a. Have a Washington State-Certified Asbestos Inspector determine the types and

Environmental Protection Processes

Actionee	Step	Action
POC		quantities of asbestos present.
		b. From information obtained, determine which notification requirements apply, if any.
		c. Check facility listing and the scope of activities against the pre-approved <i>Annual NOI</i> for facilities already covered under an approved NOI.
Responsible Manager	7.	Do not introduce exotic plant or animal species, including those intended for the purposes of soil stabilization or revegetation, pest control, or landscaping, without prior review by the <u>NEPA/SEPA POC</u> .
	8.	Before performing an action that has the potential to impact a <i>Waste Information Data System (WIDS) waste management unit site</i> , proceed according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u> .
	9.	If the work will potentially disturb chemical or radioactive contamination, determine whether an air emission <i>Notice of Construction (NOC)</i> is required; if required, prepare an NOC according to the instructions in HNF-PRO-15335, <u>Section 5.2, Permitting Criteria/Toxic Air Emissions Sources</u> , and/or <u>Section 5.3, Permitting Radioactive Air Emissions Sources</u> .
NOTE: The disturbance of radioactive contamination is a potential source of radioactive airborne emissions and may constitute a regulated activity. An advance submittal and regulatory approval of a NOC application may be required by WDOH and by EPA, Region 10. The approval requirements apply to temporary, portable, or permanent activities.		
	10.	Perform the following during deactivating, decontaminating, dismantling or closing facilities, equipment, or processes:
		a. Proceed with the project according to the requirements in the NEPA and/or SEPA approvals, HCRC approvals, ECR approvals, permit conditions, and any other requirements or approvals identified.
		b. If asbestos is found during a demolition or renovation project where no asbestos was expected, stop work and evaluate the need for an individual NOI. [See <u>Section 5.38, Removing Asbestos-Containing Material (i.e., Renovation)</u>].
		c. Stop work and ensure permit approval coverage is provided if radioactive material is found where none was expected and where it may be potentially contacted.
		d. Provide required monitoring/reporting of emissions.

Environmental Protection Processes

Actionee Step

Action

e. Take precautions to prevent the emission of air pollutants resulting from *fugitive emissions*.

1. Minimize fugitive dust generation during deactivation, decontamination, dismantlement, or closure activities.
2. Contact the Non-Radioactive Air POC to obtain additional guidance, as needed.

11. If soil is excavated and cannot be returned to its original site, and is known to contain a listed waste, implement the instructions in Section 5.62, Managing Soil, Groundwater, and Debris Contaminated With a Listed Dangerous Waste.
12. If the work affected a WIDS site and new information was identified, or a new WIDS site was created, proceed according to the instructions in Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts.
13. Maintain copies of the completed *Environmental-Activity Screening form*, *NEPA Screening form*, NEPA/SEPA documentation, HCRC and ECR reviews/reports, NOIs, permits, and any other documents according to the instructions in Section 7.0, Records.

5.44 Temporarily Closing Regulated Underground Storage Tanks

[Basis: HNF-RD-15332, Section 2.44]

NOTE: This section does not apply to the following underground storage tanks (UST) systems:

- Tanks with less than 10% of their volume below the ground
- UST systems holding hazardous wastes subject to Subtitle C of the *Federal Solid Waste Disposal Act*, or a mixture of such hazardous wastes and other regulated substances.
- Wastewater treatment tank systems that are part of a wastewater treatment facility regulated under Section 402 or 307(b) of the *Clean Water Act*.
- Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.
- UST systems whose capacity is 110 gallons or less.
- UST systems that have never contained more than a de minimis concentration of *regulated substances*.

Environmental Protection Processes

- Emergency spill or overflow containment UST systems that are expeditiously emptied after use.
- UST systems used for storing heating oil for consumptive use on the premises where stored; except that such systems which store in excess of 1,100 gallons are subject to the release reporting requirements of WAC 173-360-372.
- Septic tanks.
- Surface impoundments, pits, ponds, or lagoons.
- Storm water or wastewater collection systems.
- Flow-through process tanks.
- Storage tanks situated in an underground area (such as a basement, cellar, vault, or tunnel) if the storage tanks are situated upon or above the surface of the floor.
- Wastewater treatment tank systems not regulated under Section 307(b) or 402 of the *Clean Water Act*.
- UST systems containing radioactive material that are regulated under the *Atomic Energy Act* (42 USC 2011).
- UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR 50, Appendix A.
- UST systems with field-constructed tanks.

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions, in addition to those found in <u>Section 5.43, Discontinuing Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General</u> , when temporarily closing USTs.
	2.	When an UST system is temporarily closed for 3 months or more perform the following: <ul style="list-style-type: none"> • Leave vent lines open and functioning. • Cap and secure all other lines, pumps, entryways, and ancillary equipment. • Operate and maintain corrosion protection systems per WAC-173-360-320. • Perform release detection per WAC 173-360-330 through 355 unless the UST system is empty.

Environmental Protection Processes

Actionee	Step	Action
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NOTE: The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

3. If temporary closure extends beyond 3 months, and the release detection system is *not* operational (i.e., in compliance with WAC 173-360-330), then have a Certified UST Supervisor tightness-test the system before the system is placed back into service.
4. If temporary closure extends more than 12 months, then permanently close the tank system per WAC 173-360-385, if the UST system does not meet the performance standards outlined in WAC 173-360-380(4). Contact the UST POC to determine if an extension can be obtained from the Washington State Department of Ecology (Ecology).
5. Report *spills* or *releases*, or unusual operating conditions (see WAC 173-360-360) to the *Occurrence Notification Center* (ONC) within 30 minutes according to the instructions in Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances.
 - If a confirmed release occurs, within 24 hours of having knowledge of the release lock the fill pipe and remove from display the permit for the tank from which the release has occurred.
6. Return active permits for those systems being temporarily closed to Ecology within 30 days of completion of the temporary closure activities.
7. Maintain UST system records according to the instructions in Section 7.0, Records, and in compliance with applicable requirements of WAC 173-360-330 through WAC-173-360-355.

5.45 Permanently Closing Regulated Underground Storage Tanks or Making a Change in Service [Basis: HNF-RD-15332, Section 2.45]

NOTE: This section does not apply to the following UST systems:

- Tanks with less than 10% of their volume below the ground.
- UST systems holding hazardous wastes subject to Subtitle C of the *Federal Solid Waste Disposal Act*, or a mixture of such hazardous wastes and other regulated substances.

Environmental Protection Processes

- Wastewater treatment tank systems that are part of a wastewater treatment facility regulated under Section 402 or 307(b) of the *Clean Water Act*.
- Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.
- UST systems whose capacity is 110 gallons or less.
- UST systems that have never contained more than a de minimis concentration of *regulated substances*.
- Emergency spill or overflow containment UST systems that are expeditiously emptied after use.
- UST systems used for storing heating oil for consumptive use on the premises where stored; except that such systems which store in excess of 1,100 gallons are subject to the release reporting requirements of WAC 173-360-372.
- Septic tanks.
- Surface impoundments, pits, ponds, or lagoons.
- Storm water or wastewater collection systems.
- Flow-through process tanks.
- Storage tanks situated in an underground area (such as a basement, cellar, vault, or tunnel) if the storage tanks are situated upon or above the surface of the floor.
- Wastewater treatment tank systems not regulated under section 307(b) or 402 of the *Clean Water Act*.
- UST systems containing radioactive material that are regulated under the *Atomic Energy Act* (42 USC 2011).
- UST system that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR 50, Appendix A.
- UST systems with field-constructed tanks.

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.43, Discontinuing Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General</u> , when permanently closing UST systems or making a change in service.
	2.	At least 30 days before beginning either permanent closure or a change-in-service,

Environmental Protection Processes

Actionee	Step	Action
		notify the Washington State Department of Ecology (Ecology) in writing of the intent to permanently close or make the change-in-service, unless such action is in response to corrective action.
	3.	<p>Permanently close UST systems or perform change-in-service using a Certified UST Supervisor in compliance-with WAC 173-360-385 and WAC 173-360-390.</p> <ul style="list-style-type: none"> If a change to an UST system affects information initially reported in the <i>UST Notification form</i>, submit a new <i>UST Notification form</i> to Ecology within 30 days after the changes occur. Contact the <u>UST POC</u> to obtain the form. Copy the <i>Environmental Portal</i> on submittals to DOE-RL at Outlook Address: ^Correspondence Control-PHMC or <u>Correspondence Control-PHMC@apjmc01.rl.gov</u>.
	4.	Report <i>spills or releases</i> , or unusual operating conditions (see WAC 173-360-360) to the Occurrence Notification Center (ONC) within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u> .
	5.	Notify Ecology within 30 days of the completion of the closure procedures and return the active permit.
	6.	If further closure activities are undertaken on a previously closed tank, perform a site assessment using a Registered Site Assessor.
	7.	Maintain records documenting the results of site assessments for a minimum of 5 years after completion of permanent closure or change-in-service per WAC 173-360-398.

5.46 Closing RCRA Treatment, Storage, and/or Disposal Units

[Basis: HNF-RD-15332, Section 2.46]

NOTE: In accordance with the *Hanford Federal Facility Agreement and Consent Order* (Tri Party Agreement), the Hanford Site consists of a single *Resource Conservation and Recovery Act* (RCRA) facility (referred to as the Hanford Facility), consisting of over 70 treatment, storage or disposal units (TSD) units. These TSD units are identified in DOE/RL-88-21, Hanford Facility Dangerous Waste Part A Permit Application (HF Part A Permit Application), maintained by the RCRA Sitewide Permitting (Modifications) POC. Each TSD unit contained in the HF Part A Permit Application is described using a Part A, Form 3, and has one of the following statuses: (1) interim status, (2) final status, or (3) "pending," i.e., awaiting a decision or approval from the Washington State Department of Ecology (Ecology).

Environmental Protection Processes

Because all of the TSD units cannot be permitted simultaneously, Ecology and the EPA issued an initial *Hanford Facility RCRA Permit* (WA7890008967) (HF RCRA Permit) for less than the entire Hanford Facility. Over time, the HF RCRA Permit has, and will continue to grow, until all TSD units (except procedural closure TSD units) are incorporated. TSD units not yet incorporated into the HF RCRA Permit will be incorporated through a permit modification into one of three parts of the permit: (1) Part III, *Unit-Specific Conditions for Final Status Operations*; (2) Part V, *Unit-Specific Conditions for Units Undergoing Closure*; and (3) Part VI, *Unit-Specific Conditions for Units in Post-Closure*. Incorporation of operating TSD units into the HF RCRA Permit is based on information in the *Hanford Facility Dangerous Waste Permit Application* (HF Part B Permit Application), comprised of a General Information Portion (providing information at the Hanford Facility Level) and a TSD Unit-Specific Portion. Incorporation of non-operating TSD units is based on information in closure plans or post-closure documentation. Permit application and closure documentation, developed by the Operator/Co-operator (DOE-RL/FH), is attached to the HF RCRA Permit and used by Ecology as the bases for permit conditions.

TSD units already incorporated into the HF RCRA Permit are subject to permit conditions and final status permit modification requirements. TSD units not yet incorporated into the HF RCRA Permit are subject to interim status requirements.

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.43, Discontinuing Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General</u> , when closing dangerous and/or mixed waste RCRA TSD units.
	2.	Close RCRA TSD units in accordance with an approved closure plan based on WAC 173-303-610 and on requirements in the <u>Tri-Party Agreement Action Plan</u> , Section 5.3.
	3.	For changes in closure plan documentation contained in the HF RCRA Permit, make amendments to the closure plan in accordance with HF RCRA Permit Condition II.J.3. and according to the instructions in <u>Section 5.6, Constructing or Modifying Resource Conservation and Recovery Act Treatment, Storage, and/or Disposal Units (Including Adding New Wastes or Changing Permit Text)</u> .

NOTE: Interim status closure plans not incorporated into the HF RCRA Permit can be amended by the project without following the permit modification process.

4. Complete internal approvals and/or co-operator certification(s) as necessary for changes during interim status, HF RCRA Permit modifications, and new permit documentation.
 - a. Contact the RCRA Sitewide Permitting (Technical) POC to determine the appropriate certification and approval format.

Environmental Protection Processes

Actionee	Step	Action
RCRA Sitewide Permitting (Technical) POC		b. Coordinate and schedule any FH certifications with the FH President's Office.
Responsible Manager		c. Obtain appropriate signatures.
		d. Transmit the FH-certified and/or approved permitting documentation to DOE-RL.
		e. Ensure DOE-RL transmits the documentation to Ecology and/or the EPA as appropriate.
	5.	Maintain records and documentation demonstrating closure was performed in accordance with the approved closure plan according to the instructions in <u>Section 7.0, Records</u> .

5.47 Discontinuing Use Of or Relocating a Satellite Accumulation Area

[Basis: HNF-RD-15332, Section 2.47]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.43, Discontinuing Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General</u> , when discontinuing use of or relocating a satellite accumulation area (SAA).
	2.	After the activities or processes that formerly generated the waste are discontinued or relocated, remove the SAA collection container from the generating location and transfer it to a 90-day accumulation area or <i>Resource Conservation and Recovery Act</i> (RCRA) treatment, storage, and/or disposal (TSD) unit as follows: <ul style="list-style-type: none"> a. Start arrangements to remove SAA containers from spill cleanup or other one-time generating activities in a timely manner after completion of generating activities. b. Start arrangements to remove SAA containers from generating activities that remain idle (i.e., do not receive waste) for 12 months in a timely manner after the passage of 12 months. c. If SAA containers are idle for 12 months, but are used for collecting waste from an activity or process that is reasonably expected to generate waste within the next 6 months, prepare and maintain documentation indicating the SAA's planned future use. Obtain concurrence from the <u>Cognizant ECO</u>.

Environmental Protection Processes

Actionee	Step	Action
		<p>d. Without exception, start arrangements to remove SAA containers that are idle for 18 months in a timely manner.</p> <p>e. When a waste is transported offsite, only transport the waste to a TSD facility.</p> <p>3. Perform the following SAA closure actions:</p> <p>a. Clean associated equipment and remove the equipment from the SAA.</p> <p>b. Remove postings.</p> <p>c. Delete reference to waste streams and the SAA in emergency preparedness documentation (e.g., facility boards, building emergency plan, etc.) and any other waste management documentation.</p> <p>d. Provide information regarding the completed SAA closure to the <u>RCRA Generator Activities POC</u> to update the organization's SAA listing in the SAA/90-Day Accumulation Area Database (available under <u>RCRA Permitting</u>).</p> <p>4. Maintain records of the closure according to the instructions in <u>Section 7.0, Records</u>.</p>

5.48 Discontinuing Use of or Closing a 90-Day Accumulation Area

[Basis: HNF-RD-15332, Section 2.48]

Actionee	Step	Action
		<p>NOTE: For a 90-day accumulation area: "active" is defined as a 90-day area storing waste; "suspended" is defined as a 90-day area that is not storing waste, but waste storage is anticipated to occur again at the site; "closed" is defined as a 90-day area that is not storing waste, and <i>no</i> waste storage is anticipated to occur again at the site. This section focuses on discontinuing use of or closing a 90-day accumulation area. <u>Section 5.67</u> focuses on managing an "active" 90-day Accumulation Area.</p>

Responsible
Manager

1. Use the following instructions in addition to those found in Section 5.43, Discontinuing Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General, when discontinuing use of or closing a 90-day accumulation area.
2. Perform the following 90-day accumulation area closure actions:
 - a. Transfer the waste to a 90-day accumulation area or a *Resource Conservation and Recovery Act* (RCRA) treatment, storage, and/or disposal (TSD) unit.

Environmental Protection Processes

Actionee	Step	Action
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NOTE: A waste must be transported to a TSD facility when the movement is defined as an "offsite shipment."

- b. Clean associated equipment and materials and remove them from the 90-day accumulation area in accordance with WAC 173-303-610(2) and (5).
 - c. Remove postings.
 - d. Delete reference to waste streams and the 90-day accumulation area in emergency preparedness documentation (e.g., facility boards, building emergency plan, etc.) and any other waste management documentation.
 - e. Document decision-making information and remedial actions taken to clean up and close the 90-day accumulation area.
 - f. Provide information regarding the completed 90-day accumulation area closure to the RCRA Generator Activities POC to update the organization's 90-day listing in the Satellite Accumulation Area/90-Day Accumulation Area Database. Do *not* identify the 90-day accumulation area as "closed" if dangerous and/or mixed waste management activities will occur at that location again.
3. Contact the Project WIDS POC when any one of the following situations exist:
 - The closure standards of WAC 173-303-610(2) and (5) cannot be met.
 - A *spill or release* into the *environment* occurred at the 90-day accumulation area during the period of active management.
 - Any other uncertainties or residual issues exist regarding waste management operations such that a WIDS record will help ensure appropriate future management/cleanup actions at the site.
4. Maintain records of the closure according to the instructions in Section 7.0, Records.

5.49 Closing or Removing a Septic Tank From Service

[Basis: HNF-RD-15332, Section 2.49]

Actionee	Step	Action
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| Responsible Manager | 1. Use the following instructions in addition to those found in <u>Section 5.43, Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General</u> , when closing or removing a septic tank from service. |
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Environmental Protection Processes

HNF-PRO-15333, Rev. 0

Published: August 8, 2003

Page 125 of 231

Actionee	Step	Action
	2.	When removing a septic tank from service perform the following: <ol style="list-style-type: none"> Contact Water Utilities to obtain an approved septic tank pumper to remove the septage. Remove and destroy the lid. Fill the void with soil.
Water Utilities	3.	Determine with the septic tank owner if there is a potential for radionuclides to be present in the septage. <ol style="list-style-type: none"> Contact the <u>Domestic Wastewater POC</u> for assistance. Based on process knowledge, test the waste for radionuclides prior to removal from the septic tank.
	4.	Use septic tank pumpers that are approved by the local health officer.
	5.	Dispose of septage according to the characteristics of the waste.
	6.	Maintain records of the closure according to the instructions in <u>Section 7.0, Records</u> .

5.50 Performing Comprehensive Environmental Response, Compensation and Liability Act Response Actions

[Basis: HNF-RD-15332, Section 2.50]

Actionee	Step	Action
	1.	If performing asbestos renovation/demolition under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), provide a summary of the activity to the <u>Asbestos Program Manager</u> .

NOTE: Asbestos renovation/demolition information from CERCLA activities are provided to the Benton Clean Air Authority along with the Annual Notification of Intent submittal (Figure 3 on the EP website).

Responsible Manager	2.	If institutional controls (e.g., signs and fences) are required by CERCLA decision documents and/or described in applicable work plans, then conduct surveillance as follows: <ul style="list-style-type: none"> Assess the performance of the institutional controls periodically to ensure their effectiveness.
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Environmental Protection Processes

Actionee	Step	Action
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- Identify and report to DOE-RL, as necessary, the need to make any adjustments to the institutional controls based on performance findings.
- Identify and report to DOE-RL any observed deficiencies (e.g., signs missing, fences down) and recommend appropriate corrective action to DOE-RL.

3. Perform all response actions taken pursuant to CERCLA authority in accordance with the applicable processes and requirements established in the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement), National Contingency Plan, 40 CFR 300, and/or the joint DOE/ EPA *Policy on Decommissioning of Department of Energy Facilities Under CERCLA* (Joint Policy), as appropriate.

NOTE: The Tri-Party Agreement is intended to address all DOE CERCLA obligations for response actions at the Hanford Site. The Tri-Party Agreement classifies all non-treatment, storage, and/or disposal waste management units as past-practice units. All waste management units, including past practice units that are subject to the Tri-Party Agreement, are documented in the *Waste Information Data System* pursuant to the Tri-Party Agreement Action Plan, Section 3.5. The Tri-Party Agreement implements the requirements of the *National Contingency Plan*, which is administered through 40 CFR 300. Two types of response actions in 40 CFR 300 are removal actions and remedial actions. If a situation at the Hanford Site is determined by the *Lead Regulatory Agency* to represent an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance or hazardous or solid waste at an *operable unit*, the Lead Regulatory Agency may require the DOE to immediately initiate activities to abate the danger or threat pursuant to the Tri-Party Agreement Action Plan, Section 7.2.3.

4. Conduct removal actions (i.e., interim response actions) in accordance with the Tri-Party Agreement Action Plan, Section 7.2.4, and 40 CFR 300.415.
 - a. Prepare an engineering evaluation/cost analysis (EE/CA) for non-time critical removal actions in accordance with 40 CFR 300.415(b)(4).
 - b. Develop proposed applicable or relevant and appropriate requirements (ARARs) for the EE/CA in accordance with Step 5.50.7.
 - c. Obtain appropriate internal review of the EE/CA, including review by the CERCLA POC.
 - d. Submit the EE/CA to DOE-RL.
 - e. Ensure that an action memorandum (AM) is obtained from DOE-RL, with

Environmental Protection Processes

Actionee	Step	Action
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concurrence by the Lead Regulatory Agency, as appropriate, prior to conducting the removal action, unless alternate direction is received from DOE-RL.

NOTE: Removal actions associated with past practice units that are part of an operable unit will be subject to approval by the Lead Regulatory Agency as identified in the Tri-Party Agreement Action Plan, Appendix C. Removal actions associated with decontamination and decommissioning of non-Tri-Party Agreement facilities are subject to EPA involvement in accordance with the Joint Policy.

- f. Ensure that all other appropriate documentation is obtained from DOE, with concurrence by the Lead Regulatory Agency, as appropriate, to serve as a bridge between the information in the AM and the detailed work instructions prior to conducting work, unless alternate direction is received from DOE.
- g. Implement the removal action in accordance with the approved AM and associated documentation.

NOTE: Removal actions at Hanford are used for expedited response because of an actual or threatened release from a past-practice unit. The Tri-Party Agreement Action Plan, Section 7.2.4, refers to removal actions as interim response actions. In addition, Executive Order 12580, dated January 29, 1987, allows the DOE to implement removal actions in situations other than emergencies. Currently, such removal actions being conducted at Hanford are non-time critical (NTC) removal actions pursuant to 40 CFR 300.415. If a removal action other than a NTC removal action is anticipated, contact the CERCLA POC prior to addressing the action. Removal actions are authorized via an AM from the DOE and/or the Lead Regulatory Agency. The AM is used to document the activities and authorize any additional response actions. Generally, the AM will be written prior to the initiation of removal activities. For a comprehensive guide to performing removal actions at Hanford, see the CERCLA website.

- 5. Conduct actions associated with the transition, surveillance, and maintenance, and/or the disposition of *key facilities* in accordance with Tri-Party Agreement Action Plan, Section 8.0.
 - a. Develop facility-specific disposition end states during the disposition planning phase for facilities containing hazardous substances pursuant to the Tri-Party Agreement Action Plan, Section 8.7.1.
 - b. Obtain documentation for implementation of disposition end states for facilities containing hazardous substances pursuant to the Tri-Party Agreement Action Plan, Section 8.7.2.

NOTE: The facility decommissioning process of the Tri-Party Agreement Action Plan, Section 8.0, defines the approach for taking key facilities from operational status to its end state condition

Environmental Protection Processes

Actionee	Step	Action
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(final disposition). The process is designed to address DOE guidance documents and to ensure compliance with environmental regulations, including waste management, closure, and post closure requirements under the *Resource Conservation and Recovery Act*, and remedial and/or removal action requirements under CERCLA.

6. Conduct remedial actions for CECLA past practice (CPP) units in accordance with the Tri-Party Agreement Action Plan, Section 7.3, and 40 CFR 300.
 - a. Conduct a remedial action/feasibility study (RI/FS) prior to selection of a remedial action pursuant to 40 CFR 300.430.
 - b. Develop proposed ARARs for the RI/FS in accordance with Step 5.50.7.
 - c. Obtain appropriate internal review of the RI/FS, including review by the CERCLA POC.
 - d. Submit the RI/FS to DOE-RL.
 - e. Ensure that a record of decision (ROD) is obtained from DOE-RL, with concurrence by the EPA, and the Lead Regulatory Agency, as appropriate, prior to performing work.
 - f. Ensure that all other appropriate documentation is obtained from DOE-RL, with concurrence by the Lead Regulatory Agency, as appropriate, to serve as a bridge between the information in the ROD and the detailed work instructions prior to conducting work, unless alternate direction is received from DOE.
 - g. Implement remedial design/remedial action in accordance with the approved ROD and associated documentation pursuant to the Tri-Party Agreement Action Plan, Sections 7.3.9 and 7.3.10.

NOTE: Remedial actions are typically long term, comprehensive cleanup actions. Remedial actions at Hanford are in accordance with the Tri-Party Agreement Action Plan, Section 7.3, which refers to remedial action as the CPP unit process. This process is addressed in detail in Section 7.3, which is intended to address the requirements of 40 CFR 300, Subpart E, for remedial action. Each group of CPP units that is listed together for purposes of cleanup constitutes a CPP operable unit. The preliminary assessment/site inspection of Section 7.3.1 has been completed for the Hanford Site, resulting in multiple listings on the National Priorities List.

7. Develop proposed ARARs during the evaluation process for response actions in accordance with the Tri-Party Agreement Action Plan, Section 7.5.
 - a. Propose ARARs for remedial actions using the TPA Action Plan,

Environmental Protection Processes

Actionee	Step	Action
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Section 7.5, as an information source during the RI/FS process.

- b. Propose ARARs, as appropriate, for removal actions, recognizing that these units will later be subject to ARARs during the final remedial action process per the Tri-Party Agreement Action Plan, Section 7.5.
- c. Propose *National Environmental Policy Act* values for response actions consistent with the *Secretary of Energy's Policy Statement on the National Environmental Policy Act (NEPA)* and DOE O 451.1B, Change 1.
- d. Propose additional ARARs and/or to-be-considered criteria as appropriate.
- e. Provide a draft listing of proposed ARARs to the CERCLA POC, for review and comment prior to submittal to DOE-RL.

NOTE: Onsite CERCLA response actions must be performed in compliance with all substantive requirements of ARARs. These ARARs include cleanup standards, standards of control, and other substantive environmental protection requirements and criteria for hazardous substances as specified in federal and/or state laws and regulations. Response actions are exempt from administrative requirements, including the requirement to obtain permits. Onsite is defined for CERCLA actions as the areal extent of contamination, including all suitable areas in close proximity to the contamination that are necessary for implementation of the response action.

- 8. Develop quality assurance/quality control (QA/QC) criteria for sample collection, preservation, and transportation, and analysis in accordance with the EPA guidance provided in the Tri-Party Agreement Action Plan, Section 7.8, using the data quality objectives (DQOs) process. Include DQOs in RI/FS or other work plans that may be used to describe sampling and analysis activities for CPP units.

NOTE: In the event that DOE-RL fails to demonstrate to the Lead Regulatory Agency that data generated pursuant to the Tri-Party Agreement was obtained in accordance with the QA/QC requirements of Section 7.8, including laboratory QA/QC plans, DOE-RL will be obligated to repeat sampling or analysis as required by the Lead Regulatory Agency.

- 9. Before performing site characterization activities, and environmental investigations (including treatability studies) of past practice units regulated under CERCLA that will generate investigation derived waste (IDW), include in the Treatability Test Plan, Sampling and Analysis Plan, Waste Control Plan, or similar documentation, a description of the waste site boundaries, the IDW storage location and method, and final disposition, if any, and requirements for IDW sampling in the plan(s).

Environmental Protection Processes

Actionee	Step	Action
		Obtain appropriate approval(s) of the plan(s) through submittal to DOE-RL.

5.51 Discontinuing Use Of or Closing Injection Wells

[Basis: HNF-RD-15332, Section 2.51]

Actionee	Step	Action
Responsible Manager	1.	Use the following instructions in addition to those found in <u>Section 5.43, Use of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General</u> , when discontinuing use of or closing an injection well.
	2.	Immediately install a temporary plug.
	3.	Register the well as temporarily abandoned with the Washington State Department of Ecology (Ecology) Underground Injection Control (UIC) Program Coordinator. (See the <u>Ecology Underground Injection Control website</u> .)
	4.	Characterize and/or test liquids, sludge, and solids in the well system for dangerous waste characteristics.
	5.	Assess the well for hazardous waste contamination using the characterization results.
	6.	If contamination is found, investigate, clean, and close in accordance with applicable requirements. Contact the <u>UIC POC</u> for assistance, as needed.
	7.	If contamination is not found, plug the well using a surface seal to prevent contamination of deeper aquifers and seal other aquitards (impervious zones) to prevent cross-aquifer contamination. <ul style="list-style-type: none"> a. Drilled wells should follow well abandonment procedures in the <i>Minimum Standards for Construction and Maintenance of Wells</i> (see WAC 173-160). b. Dug wells should use good engineering practices that meet the surface seal requirement and future use requirements for the site.
	8.	Send a notice of permanent abandonment to the Ecology UIC Program Coordinator.
	9.	Contact the <u>UIC POC</u> to determine if notification is required for changes to existing injection wells.

Environmental Protection Processes

Actionee	Step	Action
	10.	Maintain project-specific documentation necessary to show compliance with the UIC Program closure requirements according to the instructions in <u>Section 7.0, Records</u> .

5.52 Purchasing Refrigerants, Appliances Containing Refrigerants, System Components That Operate Using Refrigerants, or Refrigerant Recovery or Recycling Equipment
 [Basis: HNF-RD-15332, Section 2.52]

Actionee	Step	Action
Responsible Manager and Contract Specialist	1.	<p>Purchase only EPA-approved products listed below. Contact the <u>Non-Radioactive Air POC</u> for assistance in determining equipment that meets EPA requirements, if necessary.</p> <p>a. If purchasing any of the following types of products, ensure they are an EPA-approved product.</p> <ul style="list-style-type: none"> • Refrigerants, • Appliances containing refrigerants, • New or replacement system components that operate using refrigerants (e.g., condensers, compressors, and evaporators). • Refrigerant recovery equipment, <i>or</i> • Refrigerant recycle equipment.

NOTE: See HNF-PRO-10468, Chemical Management Process.

2. If purchasing Class I or Class II refrigerants (i.e., ODSs), perform the following:
 - a. Use recycled refrigerant from existing DOE excess inventory whenever practicable,
 - b. Provide evidence that at least one technician is properly certified to the wholesaler who sells the refrigerant, *and*
 - c. Notify the wholesaler in the event that at least one properly certified technician is no longer employed, or if the person changes position and no longer serves in that capacity.

NOTE: The wholesaler is prohibited from selling Class I or Class II refrigerants to a purchaser unless the purchaser employs at least one properly certified technician.

3. Encourage the substitution of Class I and Class II ODSs with safe alternatives.

NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

Actionee	Step	Action
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NOTE: EPA's current list of safe substitutes can be found under 40 CFR 82, Subpart G.

5.53 Procuring Pesticides or Pesticide Applicators

[Basis: HNF-RD-15332, Section 2.53]

Actionee	Step	Action
Responsible Manager and Contract Specialist	1.	Procure only certified commercial pesticide applicators (CPA) to apply and use pesticides listed in WAC 16-228-1231 and any EPA-restricted use pesticides (refer to 40 CFR 152.175) not listed in WAC 16-228-1231. Limit purchases to those uses covered by the CPA's license category and as specified by label requirements.
	2.	Specify that the CPA perform the following: <ol style="list-style-type: none"> Use, apply, handle, and dispose of pesticides and their containers in compliance with federal, state, and local regulations, as applicable: <ul style="list-style-type: none"> 7 USC 136: <i>Federal Insecticide, Fungicide, and Rodenticide Act.</i> RCW 15.28: <i>Washington Pesticide Control Act.</i> RCW 17.21: <i>Washington Pesticide Application Act.</i> WAC 16-202: <i>Application of Pesticides and Plant Nutrients Through Irrigation Systems.</i> WAC 16-219: <i>Restricted Use Pesticides.</i> WAC 16-228: <i>General Pesticide Regulations.</i> WAC 16-229: <i>Secondary and Operational Area Containment for Bulk Pesticides.</i> WAC 16-230: <i>Use of Chemicals and Chemically Treated Materials in Certain Counties.</i> WAC 16-231: <i>Restricted Use Herbicides.</i> WAC 16-232: <i>Restricted Use Herbicides in Certain Counties.</i> WAC 16-233: <i>Worker Protection Standards.</i> Specify that any storage of pesticides at the site conforms to the requirements in WAC 16-228 and WAC 16-232, as applicable.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none">c. Remove any waste pesticides or waste pesticide residues or rinsates designated as dangerous waste per WAC 173-303-070 from their containers and manage them in accordance with WAC 173-303-160, <i>Containers</i>.d. Report unintentional pesticide <i>spills</i> or <i>releases</i> to the <i>Occurrence Notification Center</i> (ONC) within 30 minutes according to the instructions in <u>Section 5.56</u>.e. If applying pesticides through an irrigation system, comply with the applicable provisions of WAC 16-202.f. Store pesticides held in individual containers in undivided quantities of greater than 55 gallons liquid measure or 100 pounds net dry weight that are not otherwise exempted in accordance with applicable storage requirements of WAC 16-229-020 through WAC 16-229-300.

NOTE: Pesticides held in individual single containers greater than 55 gallons but not exceeding 500 gallons which have been filled by the original pesticide manufacturer or repackager and to which no other substance has been added by any person are defined as mini-bulk pesticides and are exempt from the requirements of WAC 16-229.

Liquid bulk pesticide containers directly attached to an apparatus for the purpose of chemigation are exempt from the requirements of WAC 16-229.

Mobile containers (e.g., rail cars or nurse tanks) used for storage of bulk liquid or dry pesticides at a storage facility for less than 15 days are not subject to storage container provisions, provided such storage is incidental to the loading or unloading of a storage container at the bulk pesticide storage facility.

1. Temporary field storage bulk liquid pesticides (up to 2,500 gallons) for no more than 14 days in a 6-month period at any one location in accordance with WAC 16-229-200. Obtain written approval by the Washington State Department of Agriculture (Agriculture) before temporarily storing bulk liquid pesticides for periods greater than this.
2. Operate any permanent storage facility where liquid bulk pesticide(s) in a single container or aggregate quantities in excess of 500 gallons or dry bulk pesticide(s) in undivided quantities in excess of 2,000 pounds in accordance with storage requirements of WAC 16-229.
3. Contact the Pesticide POC if the storage requirements of WAC 16-229 cannot be met.

Environmental Protection Processes

Actionee	Step	Action
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NOTE: A permit exemption from the storage requirements of WAC 16-229 may be sought if demonstration is made to Agriculture indicating compliance technically is not feasible. In seeking such a permit exemption, information demonstrating that substantially similar protection is possible is provided to Agriculture by the permit exemption requestor.

g. Manage permanent mixing/loading sites (i.e., locations where greater than 300 gallons of pesticide [formulated product] or 3,000 pounds of dry pesticide and locations where greater than or equal to a total of 1,500 pounds of pesticides as active ingredients are being mixed, repackaged, or transferred from one container to another within a calendar year) in accordance with WAC 16-229-400 through -470.

h. Notify the Hanford Fire Department (HFD) of pesticide storage areas, including pesticide type and quantities to be stored. Notify the HFD of pesticide inventory changes resulting in a change to a pesticide storage facility's fire hazards as soon as possible.

5.54 Procuring High Efficiency Particulate Air Filters

[Basis: HNF-RD-15332, Section 2.54]

Actionee	Step	Action
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Responsible Manager and Contract Specialist	1. Procure <i>only</i> HEPA filters designed to remove at least 99.97 percent of approved mono-dispersed test aerosols with a nominal median diameter of 0.3 micron <i>for use as</i> filtration (<i>abatement technology</i>) in facilities that contain radioactive materials.
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5.55 Excavating or Otherwise Disturbing Soils

[Basis: HNF-RD-15332, Section 2.55]

NOTE: This activity applies to the excavation or disturbance of soils that occurs during activities other than during siting studies, construction, modification, maintenance, or deactivation and decommissioning. This includes, for example, soil disturbance during the installation of soil borings and during the performance of soil sampling and/or remedial action, and off-road travel.

Instructions that address excavation or disturbance of soil during siting studies, construction, modification, maintenance, or deactivation and decommissioning are included in the following sections: Section 5.2, Performing Project Scoping Activities and Siting Studies; Section 5.3, Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) – General; Section 5.27, Maintaining and Repairing Facilities, Equipment, or Processes – General; and Section 5.43, Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes – General.

Actionee	Step	Action
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NOTE: Additional processes for excavating or otherwise disturbing soil are contained in HNF-PRO-090,

Environmental Protection Processes

Actionee	Step	Action
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Excavating, Trenching, and Shoring.

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| Responsible
Manager | 1. | Before excavating or <i>disturbing</i> soil, or before entering into binding contracts to complete any part of the activity, or procuring goods or services for the activity, have qualified personnel complete the <i>Automated Job Hazard Analysis</i> (AJHA), the <i>NEPA Screening form</i> (Site Form A-6001-497), or the <i>Environmental-Activity Screening form</i> (Site Form A-6003-727). |
| | a. | If NEPA documentation does <i>not</i> cover the activity, <i>and/or</i> additional environmental screening is needed, go to <u>Step 5.55.2</u> . |
| | b. | If NEPA documentation covers the activity, and <i>no</i> additional environmental screening is needed, go to <u>Step 5.55.4</u> . |

NOTE: Individual(s) responsible for initially filling out an *Environmental-Activity Screening form* or answering *only* the first-level NEPA question in the AJHA system must be a *Cognizant ECO* or have a minimum of 2 hours of NEPA on-the-job training (provided and/or approved by the EP Director).

The *NEPA Screening form* (Site Form A-6001-497) can be used in lieu of the *Environmental-Activity Screening form* for 90 days after the publication of this procedure. The 90-day phase-in period will enable usage-orientation sessions to take place for the *Environmental-Activity Screening form*. The content of the *NEPA Screening form* has been incorporated into the *Environmental-Activity Screening form*.

The NEPA review of facility modifications may occur during the work package preparation stage, since facility modifications are not always implemented.

EXCEPTION: "No planning required" work activities as defined in HNF-12115, *Work Management*, or within facility implementing procedures is pre-screened for NEPA applicability and other environmental requirements and does *not* require use of the *NEPA Screening form* or the *Environmental-Activity Screening form*.

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| Cognizant
ECO | 2. | Evaluate, or request that <u>EP Program Services</u> evaluate, the project documentation to identify applicable environmental requirements and to determine if the proposed project impacts cultural and/or ecological resources or active environmental permits, or requires new environmental permits and/or additional NEPA/SEPA documentation. |
| | a. | If the activity disturbs radioactive contamination, determine whether the activity requires an air <i>Notice of Construction</i> (NOC). If required, prepare an NOC according to the instructions in HNF-PRO-15335, <i>Environmental Permitting and Documentation</i> . |

Environmental Protection Processes

Actionee	Step	Action
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NOTE: The disturbance of radioactive contamination is a potential source of radioactive airborne emissions and would constitute a regulated activity. An advance submittal and regulatory approval of a NOC application may be required. Approval requirements apply to temporary, portable, and permanent activities.

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| Responsible
Manager | 3. | Provide the Responsible Manager with documentation (e.g., e-mail) of the results of the environmental requirements review, and NEPA/SEPA and permitting evaluation, and the anticipated timeframe needed to complete any required actions. Assist the Responsible Manager to obtain the necessary environmental documentation and/or approvals, as required. |
| | 4. | Before performing an activity that has the potential to impact a <i>Waste Information Data System (WIDS) waste management unit site</i> , contact the appropriate <u>Project WIDS POC</u> according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u> . |
| | 5. | Do <i>not</i> introduce exotic plant or animal species, including those intended for the purposes of soil stabilization or revegetation, pest control, or landscaping, without prior review by the <u>NEPA/SEPA POC</u> . |
| | 6. | Perform the following during implementation of the project: <ul style="list-style-type: none">a. Proceed with the project according to the requirements in the NEPA and/or SEPA documentation, <i>Hanford Cultural Resources Compliance Review</i> (HCRC) approvals, <i>Ecological Compliance Resources Review</i> (ECR) approvals, permit conditions; and any other applicable environmental requirements/approvals identified.b. Minimize fugitive dust generation. Contact the <u>Non-Radioactive Air POC</u> to obtain additional Benton Clean Air Authority guidance. |
| | 7. | If soil is excavated and cannot be returned to its original site, and is known to contain a listed waste, implement the instructions in <u>Section 5.62, Managing Soil, Groundwater, and Debris Contaminated With Listed Dangerous Waste</u> . |
| | 8. | If the excavation or soil disturbance activity affected a WIDS site and new information was identified, or a new WIDS site was created, provide a summary of the actions to the <u>Project WIDS POC</u> . |
| | 9. | Maintain copies of completed <i>Environmental-Activity Screening forms</i> , <i>NEPA Screening forms</i> , and <i>AJHA</i> documentation; NEPA/SEPA documentation; HCRC |

Environmental Protection Processes

Actionee	Step	Action
		and ECR reviews/reports; and other environmental records according to the instructions in <u>Section 7.0, Records</u> .

5.56 Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances

[Basis: HNF-RD-15332, Section 2.56]

Actionee	Step	Action
Responsible Manager	1.	Instruct staff to report non-emergency <i>events or conditions</i> in a timely fashion to their manager so that notification considerations can be pursued.
All Employees	2.	<i>Immediately call 911 for an actual or potential emergency event or condition.</i>

NOTE: DOE/RL-94-02, Hanford Emergency Management Plan, and DOE-0223, Emergency Implementing Procedures, cover emergency-related definitions and criteria. Activity 5.56 only covers non-emergency events or conditions.

3. Immediately notify your manager if you observe any of the following events or conditions (unless exempted; see NOTE below):

- Spills or releases of the following materials:

- Regulated solid, semi-solid, liquid, or airborne substances (e.g., radioactive, hazardous, dangerous, mixed wastes),
- *Pesticides* ("Pesticides" include "herbicides" and "rodenticides"),
- Oil and oil products released to navigable waterways,
- Any amount of Polychlorinated Biphenyls (PCBs) (see definition of a "*spill/release PCB*" in Appendix A), or

Fires that burn any radioactive material, inside or outside of a building or structure, including radioactive tumbleweeds,

or

- Suspected or confirmed releases of regulated substances, spills/releases, and overfills from underground storage tank (UST) systems - when any of the conditions in WAC 173-360-360 are determined to exist.

or

- Permit/license/standard non-compliances, as follows:

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> - Permit condition exceedances, standards exceedances, or potential non-compliances. - Any unplanned <i>shutdown</i>, or any <i>transient or abnormal condition</i>, or other change in facility operations which, if allowed to persist, would result in emissions of radioactive material in excess of applicable standards or license requirements. - Any permitted stack ventilation or sampling equipment that is discovered to be delinquent regarding a scheduled periodic calibration (e.g., found to be delinquent regarding a scheduled periodic aerosol test for HEPA filters; found to be delinquent regarding a scheduled periodic test or calibration of differential pressure [DP] gauges installed as part of the final stage of the environmental filtration/abatement system). - Prohibited discharges to the City of Richland Sanitary Sewer system. - Prohibited discharges from facilities subject to the <i>Aquatic Lands Lease</i>.

NOTE: Spills/releases as identified below are *exempted* from the reporting requirements of this section:

- Spills/releases to compliant secondary containment system(s) provided the spill is cleaned up in accordance with applicable requirements or recoverable and recycled back into the process
- Spills/releases in parking lots of motor oil, hydraulic oil, transmission fluid, *antifreeze*, or battery acid incidental to normal operation of a motor vehicle. (Parking lot spills/releases of oil, antifreeze, or battery acid that are *not* from the result of normal operation are reported to the *Occurrence Notification Center* [ONC] and cleaned up [for example a release of antifreeze from a radiator or radiator hose failure or vehicle overheating, oil or transmission fluid released from a failed oil seal, release from a failed fuel line or tank, or similar release].)
- Spills/releases of a few drops of liquid or a small amount of solids, inside buildings and structures that can be easily wiped up.
- Transfers from a primary container into a secondary container.
- The opening of a container (except for radioactive spill/release).
- Consumer products in use for their intended purpose.
- The application of fertilizers or pesticides.
- Fumes from fueling or operation of vehicles.

Environmental Protection Processes

Actionee	Step	Action
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NOTE: These exemptions do *not* apply to:

- Reporting requirements for any unplanned shutdown or any transient or abnormal condition, or other change in facility operations which, if allowed to persist, would result in emissions of radioactive material in excess of applicable standards or license requirements.
- Events or conditions that require a time-urgent response (i.e., assistance is requested from an emergency services organization to mitigate the event or condition [e.g., Hanford Fire Department, Patrol Operations Center, Ambulance, Medi-Vac, etc.]).
 - a. If it is unclear whether the event or condition is more than a minor situation, take appropriate protective actions and immediately call 911, then contact the immediate manager.

Responsible
Manager

4. Obtain information from the reporting individual concerning the following:
 - Name of individual reporting the event/condition.
 - Location of the event or condition.
 - Type of material involved (if a spill/release) or type of non-compliance, including affected permit or requirement if known.
 - Time and date of event or condition.
 - Approximate quantity of spilled/released material (if a spill/release).
5. Determine if the RCRA Contingency Plan should be implemented.
 - Use DOE/RL-94-02, Hanford Emergency Management Plan, Section 4.2, to make a determination.
 - If the event meets the criteria for implementing the RCRA Contingency Plan, report the event or condition according to the process identified in DOE/RL-94-02.
6. If the event does not meet implementing criteria for the RCRA Contingency Plan, report the event or condition to the ONC within 30 minutes of discovery by dialing 376-3030 or 376-2900.

NOTE: The ONC can be contacted on a 24-hour basis.

The "discovery" date and time is when staff becomes aware of an event or condition. Staff are those personnel assigned to a facility and cognizant of the area in which the event or condition is

Environmental Protection Processes

Actionee	Step	Action
		<p>identified. This is not the time the Responsible Manager or designee (e.g., shift manager) becomes aware of the event or condition. In the case of a permit/license/standard non-compliance, the 30-minute clock starts when it has been decided that a non-compliance has occurred (e.g., permit exceedance).</p> <p>To promote consistent reporting of radioactive air release events or criteria set forth in WAC-246-247, a <u>24-hour notification decision tree flow chart</u> has been placed on the intranet for use by personnel in determining notification to the ONC.</p>
	a.	Provide sufficient information for the ONC to make a decision as to whether or not notification to an outside agency is required. See the <u>EP website</u> for a sample <u>Spill/Release Checklist</u> , which provides an outline of the type of information needed by the ONC.
ONC	7.	Document information supplied by the Responsible Manager.
	a.	If information needed to make the necessary decision is not available at the time of the initial call, request the Responsible Manager to expeditiously acquire the information.
Responsible Manager	b.	Expediently acquire the information requested by the ONC and supply to the ONC.
ONC	8.	<p>a. Evaluate the information, in consultation with responsible personnel and, if necessary, subject-matter-expert personnel and determine if the event or condition meets the requirement for reportability to an offsite regulatory agency(ies), municipality(ies), and/or stakeholder(s).</p> <p>b. If an assessment of available information does not yield a definitive determination within a regulatory time frame, take a conservative approach and notify the appropriate offsite agency, municipality, and/or stakeholder contact(s).</p>
	9.	<p>If the event or condition is determined to be reportable, make the notification with the Responsible Manager or designee to the appropriate offsite regulatory agency(ies), municipality(ies), and/or stakeholder(s), via a conference call phone bridge <i>through the ONC 24-hour recorded phone line</i>.</p>
	a.	Report permit deviations and <i>excess emissions</i> within at least the following timeframes:
	1.	Deviations from air permit conditions; the probable cause of such

Environmental Protection Processes

Actionee	Step	Action
		deviations, and any corrective actions or preventative measures taken, as soon as possible, but in no case later than 12 hours after the deviation is discovered.
	2.	Excess emissions that represent a potential threat to human health or safety or that are believed to be unavoidable to the Washington State Department of Ecology (Ecology) as soon as possible.

NOTE: Non-radioactive excess emissions due to *startup* or shutdown or maintenance conditions are considered unavoidable.

3. Any unplanned shutdown, or of any transient abnormal condition lasting more than 4 hours or other change in facility operations that, if allowed to persist, would result in airborne emissions of radioactive material in excess of applicable standards or license requirements to the WDOH within 24 hours.

NOTE: WDOH may require a report submitted to them within 10 days of the notification addressing known causes, corrective actions taken, and any preventive measures taken or planned to minimize or eliminate the chance of recurrence.

4. Suspected or confirmed releases, unusual operating conditions or monitoring results that indicate a leak from UST systems within 24 hours or another reasonable time period specified by Ecology. (See WAC 173-360-360 for criteria.)

NOTE: Non-radioactive excess emissions due to upsets are considered unavoidable provided that the emissions are reported and the following is adequately demonstrated.

- "The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;
- The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance; and
- The operator took immediate and appropriate corrective action in a manner consistent with good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the operator knew or should have known that an emission standard or permit condition was being exceeded."

NOTE: The ONC is responsible for making notification phone calls to an offsite regulatory agency(ies), municipality(ies), and/or stakeholder(s) through the ONC 24-hour recorded phone line.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> The ONC will take the lead in information communication for phone calls made to report a spill/release, or a fire involving radioactive material. The Responsible Manager or designee will take the lead in information communication for phone calls made to report an event or condition.
Responsible Manager	b.	If there is a specific permit condition or arrangement that allows for a follow-on written report to be waived, or another reporting means to be used (e.g., quarterly or monthly report), specify such arrangements with the ONC so that they can be discussed with the regulators as part of the phone conversation.
ONC	c.	If the event or condition is determined to be reportable, pass this information back to the caller who made the original notification (if other than the Responsible Manager).
ONC/ Responsible Manager	10.	Maintain records according to the instructions in <u>Section 7.0, Records</u> .
Responsible Manager	11.	<p>Clean up dangerous and/or mixed waste and hazardous substance spills or discharges into the environment, which threaten human health or the environment (i.e., are reportable) in accordance with WAC 173-303-145.</p> <p>a. Maintain documentation of an account of spills and the nature of any repairs or remedial action taken at final and interim status TSD facilities and 90-day accumulation areas according to the instructions in Section 7.0.</p>
NOTE: The Responsible Manager of the organization responsible for the spill maintains copies of these records.		
	b.	When a release of a hazardous waste or substance to the soil column occurs outside a RCRA TSD unit, and is not cleaned up (i.e., left for future evaluation and/or cleanup as part of an operable unit in accordance with the <i>Hanford Federal Facility Agreement and Consent Order</i> [Tri-Party Agreement (TPA)] and <u>TPA-MP-14</u>), enter the site into the <i>Waste Information Data System</i> (WIDS) database according to the instructions in <u>Section 5.34, Maintaining Assigned Waste Information Data System Sites, Including Assessing Potential Impacts</u> .
ONC	12.	Notify the appropriate offsite regulatory agency(ies), municipality(ies), and/or stakeholder(s), that a RCRA TSD unit is in compliance with cleanup activities

Environmental Protection Processes

Actionee	Step	Action
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when implementation of the RCRA Contingency Plan has occurred.

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| Responsible Manager | <p>13. When suspected or confirmed releases, unusual operating conditions, or monitoring results that indicate a leak from a regulated UST system is determined to exist (see the conditions in WAC 173-360-360), perform the following:</p> <ul style="list-style-type: none"> a. Conduct release investigation and confirmation steps in WAC 173-360-370 as required. b. Implement the requirements of WAC 173-340-450, after confirmation of a release from an UST system that might pose a threat to human health or the environment, unless Ecology requires alternate action. c. Take immediate action to contain and clean up spills from regulated USTs in accordance with WAC 173-360-375(2) and (3). d. Maintain records documenting the release and cleanup actions. <p>14. Contact the <u>TSCA/PCBs POC</u> for instructions to clean up <i>PCB spills</i>.</p> |
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NOTE: A variety of spill cleanup methods may be used based on the source, concentration, and time of spill/release. Additional information is available in DOE/RL-2001-50, Toxic Substances Control Act Polychlorinated Biphenyls Hanford Site Users Guide.

15. If the event or condition is related to air emissions or air permit conditions, perform the following additional documentation:
- a. Report excess emissions (other than excess emissions that represent a potential threat to human health or safety) that are believed to be unavoidable to Ecology within 30 days after the end of the month during which the event occurred or as part of the routine emission monitoring reports.

NOTE: Ecology may request submittal of a full written report including known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

- b. Include a listing of upset conditions and/or permit condition deviations in the semiannual reporting and compliance certification to Ecology, in accordance with the schedule, format, and content defined in the most current version of the approved *Hanford Site Air Operating Permit*.

Environmental Protection Processes

Actionee	Step	Action
	16.	Prepare a written report in response to the event or condition, where applicable (e.g., spill/release, permit exceedance or deviation, or regulatory limit exceedance) if a waiver or other arrangement has not been made with the regulatory agency. (See <u>Table 4</u> .)
	a.	Issue the draft written report for review to the EP POC for the media (identified at the <u>EP website</u>) and the Responsible Manager.
	b.	Transmit the final written report to DOE-RL for concurrence and transmittal to the appropriate offsite regulatory agency(ies), municipality(ies), and/or stakeholder(s) within the time frames listed in <u>Table 4</u> .
	c.	Maintain a copy of the report according to the instructions in <u>Section 7.0, Records</u> .
	17.	Evaluate the spill/release to determine if a new WIDS site was created or if information needs to be added to an existing site on the WIDS database. (See <u>Section 5.33, Reporting New Waste Information Data System Sites and Reclassifying or Reassigning Waste Information Data System Sites</u> .)

Table 4
Written Reports – Spills and/or Releases

Event or Condition Topic	Recipient/Time Frame
<i>Emergency Planning and Community Right-to-Know Act</i> (spill/release).	Ecology/as soon as practical.
<i>National Pollution Discharge Elimination System</i> (permit exceedance or potential non-compliance).	EPA/within 5 days of discovery.
Radioactive Air Emissions (unplanned shutdown; or transient or abnormal event; or permit exceedance; or exceedance of a standard or limit; or potential non-compliance).	Upon request by WDOH, prepare and submit a written report to WDOH/within 10 days upon request.
Criteria/Toxic Air Excess Emissions (standard exceedance or potential non-compliance).	Ecology/within 30 days after month's end.
State Wastewater Discharge (permit exceedance or potential non-compliance).	Ecology/within 30 days of discovery.
<i>Hanford Facility RCRA Permit</i> (permit exceedance or potential non-compliance).	Ecology/within 15 days of discovery.
<i>Hanford Facility RCRA Permit</i> (implementation of RCRA contingency plan 15-day report).	Ecology/within 15 days of discovery.

Environmental Protection Processes

5.57 Generating Waste

[Basis: HNF-RD-15332, Section 2.57]

Actionee	Step	Action
Responsible Manager	1.	If organizational responsibilities relating to the management of dangerous waste overlap or are unclear, develop a memorandum of understanding/agreement, operational procedure, or other written instrument identifying the organizational responsibilities for waste handling and material management.
	2.	Determine if the waste is defined as a solid waste and if the solid waste needs a waste designation and land disposal restriction determination performed according to the instructions in <u>Section 5.58, Identifying and Designating Waste</u> .
	3.	Participate in the nondangerous waste recycling program when economically practicable to do so.
		The following nondangerous waste can be recycled through this program:
		<ul style="list-style-type: none">• Scrap office paper.• Corrugated cardboard.• Newsprint and magazines.• Glass.• Plastic (resins 1 and 2 only).• Tin (steel) containers.• Toner cartridges.• Software (e.g., manuals, packaging, diskettes, compact disks, video tapes, audio tapes, reel-to-reel tapes, magnetic tapes, Bernoulli boxes, and other electronic media).
	4.	Participate in recycling programs through the Central Consolidation/Recycling Center (CCRC) when economically practicable to do so according to the instructions in <u>Section 5.84, Managing Recyclable or Reclaimable Materials Through the Centralized Consolidation/Recycling Center</u> .
	5.	Manage any quantity of dangerous and/or mixed waste generated on the contiguous Hanford Site according to large quantity generator requirements of WAC 173-303-200.

NOTE: Dangerous waste generated off of the contiguous Hanford Site is managed under a separate

Environmental Protection Processes

Actionee	Step	Action
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EPA/State Identification Number.

- a. Manage nonradioactive dangerous waste (that qualifies as federally regulated hazardous waste) in accordance with the storage prohibitions of 40 CFR 268.50(a).

NOTE: Dangerous and/or mixed waste that is a federally regulated hazardous waste is restricted from land disposal and is prohibited from storage unless storage is "solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal." Transuranic mixed waste is not subject to the storage prohibition.

- b. Accumulate dangerous and/or mixed waste in accordance with WAC 173-303-200 unless the waste will be managed in a permitted RCRA TSD unit.

NOTE: Accumulation implies generator activities. Storage implies interim or final status TSD activities.

- c. For dangerous waste managed through the CCRC, follow the management standards prescribed in HNF-EP-0863, Management Plan for Recyclable Materials Administered by Hanford's Centralized Consolidation/Recycling Center.
6. Segregate dangerous and/or mixed waste items from non-regulated waste items using personnel that have completed training in HNF-PRO-459, Environmental Training.
7. Send mixed waste generated by activities under the *Project Hanford Management Contract* that cannot be treated and/or disposed as generated, to the Central Waste Complex, the Double Shell Tank System, or the PUREX Storage Tunnels.

If the waste acceptance criteria cannot be met for any of these three RCRA TSD units:

- a. Contact the RCRA Generator Activities POC.
- b. Notify the RCRA Waste Designator, Land Disposal Restrictions (LDR), & LDR Report Coordinator POC that a new long-term storage location must be identified.

EP
Monitoring &
Reporting
Manager

8. Annually request Responsible Managers to provide information for the *Hanford Site Annual Dangerous Waste Report*. Specify the format and schedule for submittal of the information and the EP Monitoring & Reporting POC.

Environmental Protection Processes

HNF-PRO-15333, Rev. 0

Published: August 8, 2003

Page 147 of 231

Actionee	Step	Action
Responsible Manager	9.	Obtain and certify information on dangerous and/or mixed waste required to prepare the <i>Hanford Site Annual Dangerous Waste Report</i> in accordance with WAC 173-303-220(1)(a) per the format requested by EP Monitoring & Reporting. Ensure personnel submit the information to the EP Monitoring & Reporting POC per the schedule and format requested by EP Monitoring & Reporting.
	10.	Maintain waste generator records and documentation as specified in WAC 173-303 according to the instructions in <u>Section 7.0, Records</u> .

5.58 Identifying and Designating Waste

[Basis: HNF-RD-15332, Section 2.58]

Actionee	Step	Action
Responsible Manager	1.	Only use personnel qualified in accordance with <u>HNF-PRO-459, Environmental Training</u> , to designate a solid waste (hereafter referred to as a Waste Designator).
	2.	Designate actively managed environmental media (soil, groundwater, surface water, and sediments) in accordance with WAC 173-303-070(3).
Waste Designator	3.	Perform waste designations as soon as practical after generation based on the properties of the waste at the <i>point of generation</i> . If multiple treatment activities are necessary to meet applicable land disposal restrictions (LDRs), establish the new point of generation for a treatment residue after the last treatment in the treatment train.
<p>NOTE: Establishing a new point of generation after treatment usually does not remove LDR requirements identified at the original point of generation of the waste; however, a new point of generation for LDR purposes could be established. EPA/Washington State Department of Ecology (Ecology) guidance is used to determine if a new point of generation is established for LDR purposes on a case-by-case basis.</p>		
	4.	Determine whether materials are defined as a radioactive waste.
	a.	Evaluate waste generated <i>outside radioactive material areas</i> using knowledge or testing to determine if the waste is radioactive.
	b.	Consider waste generated <i>inside</i> radioactive material areas to be radioactive waste unless a radiological release is obtained in accordance with radiological control procedures or <u>HNF-EP-0063, Hanford Site Solid Waste Acceptance Criteria</u> , Appendix F.
	c.	Document the basis for any conclusion drawn regarding the radiological

NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

Actionee	Step	Action
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characteristics of the waste as part of the radiological characterization records.

- d. Do *not* use radionuclide measurements on a waste to estimate chemical constituent concentrations for a characteristic waste unless:
 - A technical basis can be established correlating the radionuclide measurement to the weight percent of a waste in a matrix, *and*
 - A technical basis can be established correlating the weight percent of the waste to the concentration of the chemical constituent.

5. Before sampling a waste at a new location or a new waste stream, contact the Radioactive Air POC to determine if the sampling event could require an air permitting action.
6. If process knowledge is used to make a waste designation, ensure the data and information used are sufficient to properly designate the waste.
 - a. Contact the RCRA Waste Designator, Land Disposal Restrictions (LDR), & LDR Report Coordinator POC for assistance in determining whether process knowledge will constitute "acceptable knowledge" for a proper designation.
 - b. If process knowledge is insufficient to designate waste under the characteristics, obtain additional information through testing (sampling and analysis) if the waste designation will be based on acceptable knowledge.

NOTE: Testing results can supplement process knowledge, elevating the quality of knowledge to acceptable knowledge, by using any reliable method. Testing results also can be based on testing methods prescribed by regulation.

The organization responsible for the generation of a solid waste can declare the waste dangerous in lieu of testing, provided that potentially applicable waste codes are identified.

- c. If declaring a waste as dangerous using knowledge, document the declaration in the designation records to indicate the quality of knowledge used to complete the waste designation.
7. Use process knowledge to determine if solid wastes are listed wastes.
 - a. Do *not* use testing results to designate a listed waste.
 - b. If no source knowledge exists, do *not* designate the waste as a listed waste.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none">c. Unless specifically excluded by regulation, designate any RCRA solid waste derived from the treatment, storage, and/or disposal of a listed waste as a listed waste.d. If a waste is determined to be a listed waste, and the waste also exhibits a characteristic, determine if the treatment standard for the listed waste code addresses the characteristic exhibited by the waste.<ul style="list-style-type: none">• If the treatment standard for the listed code addresses the characteristic, then apply only the listed waste code to the waste.• If the treatment standard for the listed code does not address the characteristic, then apply both the listed waste code and the characteristic waste code to the waste.

NOTE: Solid waste mixed with, or derived from, listed waste must be managed as dangerous waste unless "delisted" by the EPA through petitioning in accordance with 40 CFR 260.22, as well as by Ecology in accordance with WAC 173-303-072. Condensate from an uncontained gas that originated from passive storage of a listed waste is not considered a derived-from listed waste.

8. Evaluate solid wastes to determine if they exhibit the characteristics of a dangerous waste. For mixed wastes, consider ALARA as a factor in deciding whether testing should be performed.

NOTE: If free liquids are suspected in a waste matrix, it is recommended that the Paint Filter Liquid Test, EPA SW-846 Method 9905, be used to determine the presence of free liquids for ignitable and/or corrosive waste designation purposes.

- b. Determine the underlying hazardous constituents (UHCs) (as defined in 40 CFR 268.2) for a characteristic dangerous and/or characteristic mixed waste when required by the 40 CFR 268.40 treatment standards table, except when the management pathway for the waste is known and consists of the following:
 - Transuranic (TRU) or TRU-mixed waste destined for the Waste Isolation Pilot Plant.
 - Dangerous and/or mixed waste destined for treatment and disposal at the Liquid Effluent Retention Facility (LERF)/200 Area Effluent Treatment Facility (ETF).
 - Dangerous and/or mixed waste treated at the 310 Treated Effluent Disposal Facility.
 - Labpacks destined for incineration per the alternate treatment standards

Environmental Protection Processes

Actionee	Step	Action
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for labpacks [40 CFR 268.42(c)].

- Hazardous debris managed per the alternate treatment standards for debris (40 CFR 268.45).

1. Do *not* identify waste constituents forming the basis for assignment of a waste number as an UHC (i.e., lead is *not* an UHC for a D008 waste stream).

- c. Designate mixtures of characteristic dangerous and/or mixed waste with other solid waste as dangerous and/or mixed waste only if the resulting mixture exhibits a characteristic of a dangerous waste.

NOTE: LDR may continue to apply to these decharacterized mixtures.

9. Determine if the waste exhibits a State dangerous waste criteria in the following cases:

- If the waste is *not* listed and does *not* exhibit a characteristic (WAC 173-303-070(3)(a)(iv)),
- Ecology requires testing against the criteria in accordance with WAC 173-303-070(4),

or

- Additional designation is required in accordance with WAC 173-303-070(5).

10. Assign only those waste numbers required by steps in WAC 173-303-070(3) and (5).

11. If the material is known to, or suspected to contain PCBs, establish the PCB concentration to determine if the material is a PCB waste.

- a. In general, designate and manage items and materials containing ≥ 50 ppm PCBs or < 50 ppm PCBs due to dilution as a PCB waste in accordance with 40 CFR 761.

1. Determine the classification of PCB waste based on the requirements in 40 CFR 761.50 as follows:

- PCB liquids,
- PCB Items,

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> • PCB analytical wastes, • PCB remediation waste, • PCB bulk product wastes, and/or • PCB/radioactive wastes.
		<p>b. Designate PCB wastes ≥ 2 ppm that meet the specific listings in WAC 173-303-9904 as W001 waste for management as a State-only dangerous waste when the waste will not be managed under the <i>Toxic Substances Control Act</i> (TSCA).</p>
	12.	Designate any fluorescent light ballast when removed from service, whether leaking or nonleaking, as TSCA-regulated waste unless they have a label indicating "NO PCBs" or manufacturer's paperwork stating they do <i>not</i> contain PCBs, or unless testing is performed that confirms that the ballast does <i>not</i> contain PCBs.
NOTE: The use of PCBs in fluorescent light ballasts was banned in 1978. The "NO PCBs" label was required on all fluorescent light ballasts manufactured from 1978 to 1998.		
	13.	Determine the LDR requirements to be met before disposal of dangerous and/or mixed waste based on the properties of the waste at the point of generation. Determine compliance with state and federal LDR requirements independently when addressing WAC 173-303-140(2)(a).
NOTE: Decharacterized dangerous and/or mixed waste is still subject to LDR before land disposal.		
	14.	If a container includes multiple waste streams (e.g. lab packs), indicate the designation of each waste stream in the designation record.
Responsible Manager	15.	Maintain records of dangerous waste analysis in accordance with 40 CFR 268.7 and the instructions in <u>Section 7.0, Records</u> .

NOTE: The subdivision information requirement in 40 CFR 268.9(a) is met by records identifying the subdivision made within a waste number even if the entry in the 40 CFR 268.40 table does not indicate the entry as a subcategory.

The term "waste analysis data" is interpreted broadly as meant by use of the term analysis in WAC 173-303-300(2) to include process knowledge.

Environmental Protection Processes

5.59 Generating Investigation Derived Waste Within a Waste Site or Suspected Waste Site
[Basis: HNF-RD-15332, Section 2.59]

NOTE: This section applies to *investigation derived waste* (IDW) generated from groundwater monitoring activities (i.e., well drilling, sampling, maintenance, and decommissioning), site characterization activities, and environmental investigations of past practice units regulated under CERCLA and RCRA, provided such activities or investigations have been authorized by a Treatability Test Plan, Sampling and Analysis Plan, or similar document approved by the *Lead Regulatory Agency*. Exceptions may be authorized on a case-by-case basis.

This section does not apply to any IDW generated from within the fence line of any Single-Shell Tank Farm, Double-Shell Tank Farm, and any treatment, storage, and/or disposal unit identified in Appendix B of the *Hanford Federal Facility Agreement and Consent Order* as needing an operating permit.

Actionee	Step	Action
Responsible Manager	1.	Before performing site characterization and environmental investigation operations within a known or suspected waste site that will generate IDW, ensure that a Waste Control Plan has been prepared (or is prepared), to conduct the activity and control waste. <ul style="list-style-type: none">• Identify in the Waste Control Plan waste site boundaries, the IDW storage location and method, and final disposition, if any, and requirements for IDW sampling.• In the event that a contaminant is identified in a waste site for which there is no collection criteria established in <u>DOE-90-ERB 073, Strategy for Handling and Disposing of Purgewater at the Hanford Site, Washington</u> (Purgewater Strategy), establish a site-specific limit in the Waste Control Plan.• Ensure that the Waste Control Plan has been submitted to DOE-RL for concurrence from the Lead Regulatory Agency.
	2.	Manage IDW at the site or transfer the IDW to a centralized location as described in the Waste Control Plan.
	3.	To the extent practicable, segregate from soils, slurries, and liquids miscellaneous solid waste (MSW) (e.g., rags, personnel protective equipment) generated as a result of the site characterization and environmental investigation, and that has contacted potentially contaminated materials (contact MSW). <ul style="list-style-type: none">▪ Segregate MSW that has not contacted contaminated materials (non-contact MSW) from all other material generated at the unit and dispose of the non-contact MSW in an appropriate facility.

Environmental Protection Processes

Actionee	Step	Action
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4. Manage extracted groundwater (including *purgewater* and free liquids separated from groundwater slurries) according to the most current revision of the *Purgewater Strategy*, or containerize the material and manage it in accordance with Section 5.71, *Storing Investigation Derived Waste*, and Section 5.82, *Disposing of Investigation Derived Waste*.

NOTE: Groundwater monitoring for radioactive and chemical constituents at the Hanford Site is required by DOE, the Washington State Department of Ecology, and the EPA. Groundwater is withdrawn from wells for: (1) developing newly constructed groundwater monitoring wells; (2) purging of existing wells during sample collection; (3) aquifer testing (used to help define the physical characteristics of Hanford's hydrogeology); (4) periodic cleaning and renovation of existing monitoring wells; and (5) well decommissioning. Groundwater extracted from the aquifer pursuant to actions (1) through (5) above, is defined as "purgewater." Groundwater extracted for the purpose of remediation is excluded from the definition of "purgewater."

5. Manage contaminated or suspect contaminated IDW soils as follows:

- Manage soils within the area of contamination to mitigate the spread of contaminants to the environment (e.g., place on a tarp or containerize the soil).
- Return IDW soils associated with test pits within the area of contamination to the excavation site upon completion of sampling unless directed otherwise by the *Project Manager* for the Lead Regulatory Agency.
- Collect soils from activities other than test pits, and test the soil according to the process in Section 5.61, *Identifying and Designating Investigation Derived Waste*. Store the soil in accordance with Section 5.71.

6. Manage IDW *slurry waste* generated within a waste site boundary as follows:

- Containerize and sample slurry waste as described in an approved Sampling and Analysis Plan and Section 5.61.
- Store containerized slurry waste onsite or in a designated storage area pending analytical results.
- Manage containerized slurry waste that is contaminated with hazardous constituents above dangerous waste designation limits and the Model Toxics Control Act (MTCA) soil cleanup standards, and/or that exceed the radiological release criteria, in accordance with Section 5.71 or Section 5.82.
- Return to the ground (at or near the point of origination) slurry waste that contains hazardous constituents below dangerous waste designation limits and the MTCA soil cleanup standards, and the radiological release criteria.

Environmental Protection Processes

Actionee	Step	Action
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7. Manage IDW decontamination fluids (water and/or non-hazardous cleaning solutions) as follows:
 - Containerize and manage in accordance with the Purgewater Strategy, or
 - Containerize and store IDW decontamination fluids in accordance with the process in Section 5.71 as determined by the Project Manager for the Lead Regulatory Agency.
8. Identify and designate IDW that cannot be returned to the excavation site according to the process in Section 5.61 to enable proper disposition.

5.60 Generating Investigation Derived Waste Outside a Waste Site [Basis: HNF-RD-15332, Section 2.60]

NOTE: This section applies to *investigation derived waste* (IDW) generated from groundwater monitoring activities (i.e., well drilling, sampling, maintenance, and decommissioning), site characterization activities, and environmental investigations of past practice units regulated under CERCLA and RCRA provided such activities or investigations have been authorized by a Treatability Test Plan, Sampling and Analysis Plan, or similar document approved by the *Lead Regulatory Agency*. Exceptions may be authorized on a case-by-case basis.

This section does not apply to any IDW generated from within the fence line of any Single-Shell Tank Farm, Double-Shell Tank Farm, and any treatment, storage, and/or disposal unit identified in Appendix B of the *Hanford Federal Facility Agreement and Consent Order* as needing an operating permit.

Actionee	Step	Action
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| Responsible
Manager | 1. | Manage extracted groundwater (including <i>purgewater</i> and free liquids separated from groundwater slurries) according to the most current revision of <u>DOE-90-ERB-073, Strategy for Handling and Disposing of Purgewater at the Hanford Site, Washington</u> (Purgewater Strategy), or containerize the material and manage it in accordance with <u>Section 5.71</u> and <u>Section 5.82</u> . |
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NOTE: Groundwater monitoring for radioactive and chemical constituents at the Hanford Site is required by DOE, the Washington State Department of Ecology, and EPA. Groundwater is withdrawn from wells for: (1) developing newly constructed groundwater monitoring wells; (2) purging of existing wells during sample collection; (3) aquifer testing (used to help define the physical characteristics of Hanford's hydrogeology); (4) periodic cleaning and renovation of existing monitoring wells, and (5) well decommissioning. Groundwater extracted from the aquifer pursuant to actions (1) through (5) above, is defined as "purgewater." Groundwater extracted for the purpose of remediation is excluded from the definition of "purgewater."

Environmental Protection Processes

Actionee	Step	Action
	2.	<p>Manage IDW soils generated while performing investigations, such as when drilling boreholes or digging test pits outside of a waste site, as follows:</p> <ul style="list-style-type: none">• Use process knowledge and field screening to manage soils as clean material.• Collect soil in stockpiles at the point of excavation unless visual evidence or field screening indicates the potential presence of contamination, or the Lead Regulatory Agency identifies a need to do so.• If visual evidence or field screening indicates the potential presence of contamination, manage soils to mitigate the spread of contaminants to the environment (e.g., place on a tarp or containerize the soil).• Return IDW soils associated with test pits to the excavation site upon completion of sampling unless directed otherwise by the <i>Project Manager</i> for the Lead Regulatory Agency.
	3.	<p>Manage IDW <i>slurry waste</i> generated outside of a waste site as follows:</p> <ul style="list-style-type: none">• Locate slurry pits (with a porous membrane liner) adjacent to the drill rig, outside the exclusion zone and document the location in the field notes.• If there is no visual evidence or field screening evidence of contamination and the location of the investigation is not within an area requiring purgewater management under the Purgewater Strategy, place slurry waste in the prepared slurry pit.• If there is no visual evidence or field screening evidence of contamination and the location of the investigation is within an area requiring purgewater management under the Purgewater Strategy, manage the slurry waste according to the most current revision of this Strategy, as applicable.• If there is visual evidence or field screening evidence of contamination, containerize and sample the slurry waste in accordance with <u>Section 5.61</u> and <u>Section 5.71</u>.
	4.	<p>Manage decontamination fluids from operations conducted outside the boundaries of a waste site or suspect waste site as follows:</p> <ul style="list-style-type: none">• Manage as non-contaminated IDW unless there is visual evidence or field screening evidence of contamination.• Discharge non-contaminated IDW to the ground at or near the point of excavation.• Document the non-contaminated IDW discharge locations.

Environmental Protection Processes

Actionee	Step	Action
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5. To the extent practicable, segregate from soils, slurries, and liquids miscellaneous solid waste (MSW) (e.g., rags, personnel protective equipment) generated as a result of site characterization and environmental investigation, and that has contacted potentially contaminated materials (contact MSW).
 - Segregate MSW that has not contacted waste material (non-contact MSW) from all other material generated at the unit and dispose of the non-contact MSW in an appropriate facility.
6. Collect and manage IDW generated outside a known or suspected waste site only if visual evidence or field screening indicates the potential presence of contamination or the Project Manager for the Lead Regulatory Agency identifies a need to do so.
7. If collection of IDW is required outside the waste site boundaries, collect and analyze samples for the constituents of concern identified by the Project Manager for the Lead Regulatory Agency in an approved Sampling and Analysis Plan and designate the waste according to the process in Section 5.61.

NOTE: Waste requiring sampling will have well-defined boundaries (e.g., soil piles).

8. If knowledge, field screening, or analyses indicate contamination, perform the following:
 - If IDW soil or other solid IDW was stored directly on the soil surface, excavate to a depth to ensure all contaminated material generated as part of the investigation is removed.
 - Manage IDW in accordance with the requirements of Section 5.59, Generating Investigation Derived Waste Within a Waste Site or Suspected Waste Site.

5.61 Identifying and Designating Investigation Derived Waste

[Basis: HNF-RD-15332, Section 2.61]

Actionee	Step	Action
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1. If *investigation derived waste* (IDW) is to be disposed of in the ERDF, implement a Sampling and Analysis Plan that:
 - Is sufficient to demonstrate compliance with the ERDF Waste Acceptance Criteria, and
 - Addresses all underlying hazardous constituents present in IDW designated as RCRA Land Disposal Restriction waste, where applicable.

NOTE: Before each use, check PHMS Docs Online to ensure this copy is current. [PHMS DOL Administrator]

Environmental Protection Processes

Actionee	Step	Action
	2.	Use the analytical results of samples collected as part of the investigation process as the basis for properly identifying and designating IDW.
	3.	If additional data are needed to properly identify and designate IDW, collect and analyze samples for the constituents of concern as identified in the associated work plan, treatability test plan, or equivalent document.
	4.	For solid material generated within the boundaries of a waste site, determine the toxicity characteristic if necessary. <ul style="list-style-type: none"> If a total analysis obtained demonstrates that individual analytes are present in concentrations that could not exceed the Toxicity Characteristic Leaching Procedure (TCLP) toxicity criteria, do not analyze the IDW using the TCLP and do not assign the toxicity characteristic waste code. If a total analysis demonstrates that individual analytes are present in concentrations sufficiently high enough to possibly fail the TCLP, collect samples for TCLP analysis.
	5.	Collect and screen for radiological constituents as indicated in the work plan or equivalent document. <ul style="list-style-type: none"> Perform waste analysis to identify radiological constituents when necessary.
	6.	Use process knowledge and/or waste characterization information in conjunction with field screening to identify those wastes that would be designated as characteristic or listed dangerous waste per WAC 173-303.

5.62 Managing Soil, Groundwater, and Debris Contaminated With Listed Dangerous Waste

[Basis: HNF-RD-15332, Section 2.62]

Actionee	Step	Action
Responsible Manager	1.	Designate actively managed environmental media (soil, groundwater, surface water, and sediments) in accordance with the instructions in <u>Section 5.58, Identifying and Designating Waste</u> .
	2.	Manage environmental media and debris, including excavated media that cannot be returned to an excavation, that is contaminated with a listed dangerous waste, as a dangerous waste until the media or debris has been: <ul style="list-style-type: none"> Delisted by the EPA pursuant to 40 CFR 260.22, and by the Washington State Department of Ecology (Ecology) pursuant to WAC 173-303-072(1)-(4), or

Environmental Protection Processes

Actionee	Step	Action
RCRA Waste Designation, LDR, & LDR Report Coord. POC		<ul style="list-style-type: none"> Determined by Ecology to no longer contain a listed waste (contained-in determination) for environmental media or by the EPA for hazardous debris, and, does not display a characteristic or criteria.
		<ul style="list-style-type: none"> a. Contact the <u>RCRA Waste Designation, Land Disposal Restrictions (LDR), & LDR Report Coordinator POC</u> for assistance.
		<ul style="list-style-type: none"> b. Contact Ecology and request a "contained-in" determination and/or alternative management methods for the excavated media, as appropriate. c. Provide guidance to the Responsible Manager regarding appropriate storage for the excavated media.
Responsible Manager	3.	For environmental media contaminated with listed waste that also meets the definition for debris in WAC 173-303-040, evaluate the alternative treatment standards of 40 CFR 268.45 as potential management options.
	4.	For soils designated as a listed dangerous and/or mixed waste, determine if the alternate treatment standards for contaminated soils in 40 CFR 268.49 can be used.

5.63 Managing Waste Characterization and Treatability Study Samples and Their Residues

[Basis: HNF-RD-15332, Section 2.63]

Actionee	Step	Action
<p>NOTE: A sample collected solely for testing to determine characteristics or composition is excluded from the requirements of WAC 173-303 when managed according to the sample exclusion provisions of WAC 173-303-071(3)(I). However, when the sample exits the sample exclusion, or when analytical waste is generated from the testing of the sample, the excess sample or sample residue must be properly designated.</p>		
Responsible Manager	1.	Perform the following when managing a sample of solid waste, water, soil, or contained gas that was collected for the sole purpose of determining its characteristics or composition in order to qualify for the exemption identified above.
	a.	Ensure the sample collector shipping the sample to a laboratory, or the laboratory returning a sample to a sample collector:
		<ul style="list-style-type: none"> 1. Complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements, <i>or</i> 2. If the DOT, USPS, or other shipping requirements do not apply to the

Environmental Protection Processes

Actionee	Step	Action
		<p>shipment, package the sample so that it does not leak, spill, or vaporize from its packaging and ensure the following information accompanies the sample:</p> <ul style="list-style-type: none"> • Sample collector's name, mailing address, and telephone number. • Laboratory's name, mailing address, and telephone number. • Quantity of the sample. • Date of shipment. • Description of the sample.

NOTE: This exclusion does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the storage conditions stated below.

- b. Store a sample of solid waste, water, soil, or contained gas that was collected for the sole purpose of determining its characteristics or composition under the following conditions:
 - By the sample collector before transport to the laboratory for testing.
 - In a laboratory before testing.
 - In a laboratory after testing, but before return to the sample collector, *or*
 - Temporarily in the laboratory after testing for a specific purpose.
- c. When the sample is no longer being stored for any of these purposes, or analytical waste is generated from the testing of the sample, perform the following:
 - Designate excess sample or sample residue according to the instructions in Section 5.58, Identifying and Designating Waste.
 - Accumulate excess sample or sample residue that is known or suspected to be a dangerous waste in a dangerous waste accumulation area (i.e., satellite accumulation area, 90-day accumulation area) or an interim or final status TSD unit.

NOTE: Listed waste codes carry through the analytical process to the waste streams generated from laboratory operations. Characteristic waste codes and criteria waste codes do not automatically carry through into sample residue matrices.

A sample generated or collected for treatability studies is not subject to the manifesting, labeling, packaging, marking, placarding, or 90-day accumulation standards of WAC 173-303-180, -190, and -200 when managed in compliance with WAC 173-303-071(3)(r) and/or (s).

2. Perform the following when managing a treatability study sample (sample of dangerous waste collected and shipped for the purpose of performing treatability studies) in order to qualify for the exemption.

Environmental Protection Processes

Actionee	Step	Action
	a.	Manage waste resulting from treatability tests performed in conjunction with CERCLA or RCRA past-practice remediation site activities as <i>investigation derived waste</i> in accordance with the treatability test plan as approved by the Lead Regulatory Agency and <u>Section 5.61</u> , <u>Section 5.71</u> , and <u>Section 5.82</u> .
	b.	Collect, ship, store, or use treatability study samples that are no more than 10,000 kg of media contaminated with nonacute dangerous waste, 1,000 kg of nonacute dangerous waste other than contaminated media, 1 kg of acutely hazardous waste, or 2,500 kg of media contaminated with acutely hazardous waste for each process being evaluated for each generated waste stream.
	c.	Ensure the generator or sample collector shipping a sample to a laboratory or testing facility performs the following: <ol style="list-style-type: none">Ships a sample within 90 days of being generated or of being taken from a stream of previously generated waste, to a laboratory or testing facility, which is exempt under WAC 173-303-071(3)(s) or is an interim or final status TSD unit.Ensure the mass of each sample shipment does not exceed 10,000 kg.

NOTE: The 10,000 kg quantity may be all media contaminated with nonacute dangerous waste or may include 2,500 kg of media contaminated with acute hazardous waste, 1,000 kg of dangerous waste, and 1 kg of acutely hazardous waste.

	3.	Package the sample so that it does not leak, spill, or vaporize from its packaging.
	4.	Comply with DOT, USPS (if applicable), or any other applicable shipping requirements.
	5.	If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, ensure the following information accompanies the sample: <ul style="list-style-type: none">Sample collector's name, mailing address, and telephone number.Name, address, and telephone number of the laboratory or testing facility that will perform the treatability study.Quantity of the sample.Date of shipment.Description of the sample, including its dangerous waste number.

Environmental Protection Processes

Actionee	Step	Action
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d. Store a treatability study sample under the following conditions:

- When the sample is being collected and prepared for transportation by the generator or sample collector.
- When the sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility.

e. Maintain the following records after completion of the treatability study according to the instructions in Section 7.0, Records:

- Copies of the shipping documents.
- A copy of the contract with the facility conducting the treatability study.
- Documentation showing:
 - Amount of waste shipped under this exemption.
 - Name, address, and EPA/State Identification Number of the laboratory or testing facility that received the waste.
 - Date the shipment was made.
 - Whether or not unused samples and residues were returned to the generator.

5.64 Managing Unknown Waste

[Basis: HNF-RD-15332, Section 2.64]

Actionee	Step	Action
All Employees	1.	Immediately report abandoned or improperly managed containers of <i>unknown waste</i> to the discoverer's Responsible Manager.
Responsible Manager	2.	Manage unknown waste as dangerous waste. <ul style="list-style-type: none"> a. Place the unknown waste in a 90-day accumulation area. b. Label the unknown waste with "Waste Pending Analysis" and the date of sampling. c. Within 24 hours of discovering the unknown waste, begin procedures to sample and test the waste to determine the status of the waste as a dangerous waste.

Environmental Protection Processes

Actionee	Step	Action
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- d. Act with "due diligence" to acquire the necessary laboratory testing results.
3. Keep a logbook with the information listed in Step 5.64.2 and the following:
 - Date of discovery.
 - Date samples were shipped to a testing facility.
 - Testing facility name, address, and phone number.
4. Designate the waste according to the instructions in Section 5.58, Identifying and Designating Waste, and manage the waste accordingly.

5.65 Managing Materials With Potential Future Use

[Basis: HNF-RD-15332, Section 2.65]

Actionee	Step	Action
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| Responsible
Manager | 1. If managing materials that have potential future use, such as recyclable materials or materials that may have potential value to others, or is conditionally exempt from regulation, maintain documentation that demonstrates that there is a known market or disposition for the material, and that the material meets the terms of the exclusion or exemption. |
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NOTE: Documentation includes a record, such as a contract, showing that a second person uses the material as an ingredient in a production process. In addition, owners or operators of facilities claiming that they are recycling materials must show that they have the necessary equipment to do so.

5.66 Accumulating Waste in a Satellite Accumulation Area

[Basis: HNF-RD-15332, Section 2.66]

Actionee	Step	Action
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| Responsible
Manager | 1. Ensure personnel who generate or manage dangerous and/or mixed waste are trained in accordance with <u>HNF-PRO-459, Environmental Training</u> . |
| | 2. Before placing a commercial chemical or chemical product into a satellite accumulation area (SAA), obtain chemical safety information as necessary to ensure the waste is managed properly. |

NOTE: See the Chemical Management Program website or contact the Chemical Management POC for information on chemical safety.

3. Establish and maintain a current list of SAAs for the organization's area of responsibility (that are located on the Hanford Facility) using the Satellite

Environmental Protection Processes

Actionee	Step	Action
		Accumulation Area/90-Day Accumulation Area Database System (SAA/90-Day Database) (available under <u>RCRA Permitting</u>).
	4.	Provide adequate spill response and emergency response measures.
SAA Custodian	5.	Prior to setting up any new SAA, notify the Responsible Manager that a new SAA is needed, and request an update to the organization's list of SAAs in the SAA/90-Day Database (available under <u>RCRA Permitting</u>).
NOTE: A "temporary" SAA is not required to be identified on the organization's list in the SAA/90-Day Database (available under <u>RCRA Permitting</u>). "Temporary" is defined as being set up and discontinued within 7 working days.		
Responsible Manager		<ul style="list-style-type: none">Update the organization's list of SAAs within the SAA/90-Day Database within 7 working days after the establishment of any new SAAs (unless "temporary").
SAA Custodian	6.	<p>Manage dangerous and/or mixed waste in containers at SAAs according to WAC 173-303-200(2) as follows:</p> <ul style="list-style-type: none">Keep containers "at or near" the point of generation where the waste initially accumulates.Keep containers under the control of the operator of the process generating the waste or secured at all times to prevent improper additions of wastes.Use only containers that are in good condition.Use containers that are made of, or lined with, materials compatible with the waste accumulated.Keep containers closed, except when necessary to add or remove waste.Manage and handle containers in a manner that will not result in rupture or leakage.Manage containers accumulating reactive waste according to the special requirements of WAC 173-303-630(8)(a).Manage containers accumulating incompatible waste according to the special requirements of WAC 173-303-630(9)(a) and (b).

Environmental Protection Processes

Actionee	Step	Action
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NOTE: There is no maximum or minimum distance used to define or interpret "at or near" the point of generation. "At or near" is intended to convey its common, everyday meaning. Flexibility is intended to avoid situations that would limit the ability to effectively and safely manage dangerous and/or mixed waste.

7. Before accumulating waste in a container, mark or label the container clearly to identify the major risk(s) as follows:
 - State-Only/Non-DOT Dangerous Waste: The words "hazardous waste" or "dangerous waste" are sufficient.
 - State-Only/DOT and Federal Hazardous Waste: The words "hazardous waste" or "dangerous waste" and the DOT hazard class label or mark are sufficient.
8. Designate waste as soon after generation as is practical. Maintain waste designation paperwork and supporting information, when available, for dangerous and/or mixed wastes accumulated in SAAs as follows:
 - a. When accumulating waste streams that are not aggregated (i.e., a single waste stream per container), waste designation paperwork can be completed without a container inventory sheet unless required by the receiving RCRA TSD unit.
 - b. Use container inventory sheets to facilitate completion of waste designation paperwork if multiple waste streams are aggregated in containers.
 1. Make entries onto the container inventory each time a waste is added.
 2. Date and either initial or sign the entry.
9. When the quantity for each waste stream accumulated in an SAA reaches 55-gallons of dangerous waste, or 1 quart of acute hazardous waste, perform the following:
 - a. Immediately mark the container with the current date (i.e., the 90-day accumulation date).
 - b. Move the waste within 3 calendar days (72 hours) to a designated 90-day accumulation area or a RCRA TSD unit.
 - c. If containers of less than 55 gallons capacity are used for accumulation, start the 90-day accumulation period as soon as either: (1) the container is removed from the SAA, or (2) a total of 55-gallons of dangerous waste, or 1 quart of acute hazardous waste, is reached.

Environmental Protection Processes

Actionee	Step	Action
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NOTE: A waste can be moved from a SAA to a designated 90-day accumulation area or to a RCRA TSD unit prior to reaching 55 gallons, but waste cannot be moved from one SAA to another SAA.

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| All Employees | 10. | If the SAA waste is moved to an offsite RCRA TSD facility, use a dangerous waste transporter. |
| | 11. | Report <i>spills or releases</i> of dangerous and/or mixed waste to the <i>Occurrence Notification Center (ONC)</i> within 30 minutes according to the instructions in <i>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances.</i> |
| Responsible Manager | 12. | Clean up spills or releases of dangerous and/or mixed waste determined to be reportable to the Washington State Department of Ecology in accordance with WAC 173-303-145. |

5.67 Accumulating Waste in a 90-day Accumulation Area

[Basis: HNF-RD-15332, Section 2.67]

Actionee	Step	Action
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NOTE: For a 90-day accumulation area: "active" is defined as a 90-day area storing waste; "suspended" is defined as a 90-day area that is not storing waste, but waste storage is anticipated to occur again at the site; "closed" is defined as a 90-day area that is not storing waste, and *no* waste storage is anticipated to occur again at the site. This section focuses on managing "active" 90-Day accumulation areas. Section 5.48 focuses on discontinuing use of or closing a 90-day accumulation area.

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| Responsible Manager | 1. | Prepare, maintain and implement a written dangerous waste training plan in accordance with <u>HNF-PRO-459, Environmental Training.</u> |
| | 2. | Ensure personnel who generate or manage dangerous and/or mixed waste are trained in accordance with HNF-PRO-459. |
| | 3. | Prepare and maintain contingency plan documentation according to <u>HNF-RD-7647, Emergency Preparedness Program Requirements.</u> |

NOTE: Contingency plan documentation can be combined for more than one unit.

- a. Maintain sitewide documentation (DOE/RL-94-02, Hanford Emergency Management Plan) and 90-day accumulation area-specific documentation together at a location(s) appropriate for operations (except for Emergency

Environmental Protection Processes

Actionee	Step	Action
		Coordinator names and home telephone numbers that are maintained at the Hanford Patrol Operations Center). Use the approach for maintaining emergency coordinator names and home telephone numbers identified in <u>DOE/RL-94-02</u> , Section 1.
	4.	Contact the <u>Resource Conservation and Recovery Act (RCRA) Generator Activities POC</u> for requirements and instructions pertaining to the accumulation of dangerous and/or mixed wastes in 90-day tank systems, or containment buildings (WAC 173-303-200(1)(b)(ii) and (iv) respectively).
	5.	Establish and maintain a current list of 90-day accumulation areas for the organization's area of responsibility (that are located on the Hanford Facility) using the Satellite Accumulation Area (SAA)/90 Day Accumulation Area Database System (SAA/90-Day Database) (available under <u>RCRA Permitting</u>).
90-Day Accumulation Area Custodian	6.	Prior to setting up any new 90-day accumulation area, notify the Responsible Manager that a new 90-day accumulation area is needed, and request an update to the organization's list of 90-day accumulation areas in the SAA/90-Day Database (available under <u>RCRA Permitting</u>).

NOTE: A "temporary" 90-day accumulation area is not required to be identified on the organization's list in the SAA/90-Day Database. "Temporary" is defined as being set up and dismantled or otherwise moved within 7 working days.

Responsible Manager	•	Update the organization's list of 90-day accumulation areas within the SAA/90-Day Database within seven 7 working days after the establishment of any new 90-day accumulation area (unless "temporary").
90-Day Accumulation Area Custodian	7.	Operate 90-day accumulation areas according to WAC 173-303-170 and WAC 173-303-200(1).
	8.	Before accumulating waste in a container, mark or label each container with the date that the 90-day accumulation period begins and ensure that it is clearly visible for inspection.

NOTE: For dangerous waste not being accumulated in a SAA (e.g., waste not accumulated at or near its point of generation), the 90-day accumulation period begins on the date the waste is first generated.

9. Before accumulating waste in a container, mark or label the container clearly to identify the major risk(s) as follows:

Environmental Protection Processes

Actionee	Step	Action
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- State-Only/Non-DOT Dangerous Waste: The words "hazardous waste" or "dangerous waste" are sufficient.
- State-Only/DOT and Federal Hazardous Waste: The words "hazardous waste" or "dangerous waste" and the DOT hazard class label or mark are sufficient.

10. If a 90-day accumulation area is listed as "active" on the list of 90-day accumulation areas, inspect the area weekly, during any period during which waste is present in the accumulation area.
 - a. Inspections are not required during periods of two weeks or longer for which no waste is present in the accumulation area. During such periods, enter "No waste in 90-day accumulation area" or equivalent language next to the criteria for containers on the inspection record to address time period(s) for which waste is not present in the accumulation area.
 - b. If the 90-day accumulation area is listed as "suspended," insert documentation into the weekly inspection record log indicating the time period of suspended activities to ensure continuity of the inspection record.

NOTE: "Suspended" means an area where dangerous and/or mixed waste management activities are expected to resume.

Responsible
Manager

- c. Reassess any "suspended" 90-day accumulation areas periodically to determine if these areas should be closed. Close any 90-day accumulation area if waste management activities are not resumed there within 6 months.

90-Day
Accumulation
Area
Custodian

11. Annually inspect areas where ignitable (D001) or reactive (D003) waste is managed.

NOTE: Perform the inspection in the presence of a person who is familiar with the Uniform Fire Code or the local, state, or federal fire marshal, or by an individual meeting one of these criteria.

- a. Enter the following information in the inspection log or operating record as a result of this inspection:
 - Date and time of the inspection.

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> Name of the professional inspector or fire marshal. Notation of the observations made. Any remedial actions that were taken as a result of the inspection.
	12.	Transfer or ship waste to an interim or final status offsite or onsite RCRA treatment, storage, and/or disposal (TSD) unit/facility within 90 days of the accumulation start date. <ul style="list-style-type: none"> If the waste is moved to an offsite RCRA TSD facility, use a dangerous waste transporter.
<p>NOTE: A waste can be transferred as an "onsite movement" from one 90-day accumulation area to another; however, no change will be made to the accumulation date.</p> <p>A maximum 30-day extension to the 90-day accumulation period may be requested from the Washington State Department of Ecology (Ecology) if there is a temporary, unforeseen, and uncontrollable circumstance that will be resolved within the extension period.</p>		
		<ul style="list-style-type: none"> Before expiration of the 90-day accumulation time, contact the <u>RCRA Generator Activities POC</u> to coordinate requests to extend the 90-day accumulation period on a case-by-case basis.
	13.	Maintain documentation specified in WAC 173-303 according to the instructions in <u>Section 7.0, Records</u> .
All Employees	14.	Report <i>spills or releases</i> of dangerous and/or mixed waste to the <i>Occurrence Notification Center (ONC)</i> within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u> .
Responsible Manager	15.	Clean up spills or releases of dangerous and/or mixed wastes that are determined to be reportable to Ecology in accordance with WAC 173-303-145.

5.68 Storing Polychlorinated Biphenyl Items For Reuse

[Basis: HNF-RD-15332, Section 2.68]

Actionee	Step	Action
<p>NOTE: A "PCB Article" is defined as any manufactured article, other than a PCB Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. A PCB Article includes capacitors, transformers, electric motors, pumps, pipes, and any other manufactured item</p>		

Environmental Protection Processes

Actionee	Step	Action
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that: (1) is formed to a specific shape or design during manufacture; (2) has end use function(s) dependent in whole or in part upon its shape or design during end use, and (3) has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the PCB Article.

A PCB Article with a PCB concentration less than 50 ppm is considered an excluded PCB product. It is not regulated under the *Toxic Substances Control Act* (TSCA) for use or for storage for reuse.

Responsible
Manager

1. Store a *PCB Article* for reuse according to the requirements of 40 CFR 761.35.
 - a. For storage up to 5 years only, perform the following:
 - Follow the applicable authorization requirements found at 40 CFR 761.30,
 - Maintain records noting the date the PCB Article was removed from use, projected location and future use of the PCB Article, *and*
 - If applicable, the date the PCB Article is scheduled for repair or servicing.
 - b. For storage longer than 5 years, either store:
 - In accordance with 40 CFR 761.35(c), in an area meeting the requirements of storage for disposal (40 CFR 761.65(b), including an interim or final status RCRA storage unit,

or

 - Submit a request for extension to the EPA at least 6 months before the 5-year storage for reuse period expires, and include an item-by-item justification for the desired extension.
 - c. Contact the TSCA/PCBs POC for assistance in requesting EPA for indefinite storage.
2. Mark the PCB Article as if it was in use, following the requirements at 40 CFR 761.40 and 40 CFR 761.45. (See DOE/RL-2001-50, *Toxic Substances Control Act Polychlorinated Biphenyls Hanford Site Users Guide*, Section 4.2, for guidance on marking of PCB Articles.)
3. Inspect *PCB transformers* and voltage regulators (≥ 500 ppm PCBs) in storage for reuse at least every 3 months with a minimum of 30 days between inspections.
 - a. If a PCB transformer is found to have a leak which results in any quantity of

Environmental Protection Processes

Actionee	Step	Action
		PCBs running off or about to run off the external surface of the transformer perform the following:
		1. Contact the <i>Occurrence Notification Center</i> (ONC) within 30 minutes,
		2. Contain any active leak,
		3. Repair or replace the transformer and cleanup the leak within 48 hours, and
		4. Inspect the transformer daily to verify containment of the leak.

NOTE: Some special circumstances allow for reduced inspection frequency (refer to 40 CFR 761.30 (a)(1)(xiii) for these circumstances).

4. Include information concerning *PCB Items* in storage for reuse in the Solid Waste Information and Tracking System (SWITS) database in support of preparation of the sitewide *PCB Annual Document Log* and the *PCB Annual Report*.

NOTE: The *PCB Annual Document Log* is maintained at the sitewide level. The "official" copy is available on the Record Management Information System (RMIS) indicating transmittal of the Log to DOE-RL. EP Monitoring & Reporting annually updates this log based on the SWITS information. EP Monitoring & Reporting annually requests certification of this information by contributing Responsible Managers.

EP Monitoring & Reporting Manager	5. Prepare and finalize the <i>PCB Annual Document Log</i> for submittal to the EPA.
	6. Prepare the <i>PCB Annual Report</i> for submittal to the EPA.
Responsible Manager	7. Maintain records required by 40 CFR 761.30, .35, .61, .65, .75, .79, .80, .125, and Subpart K to satisfy EPA requirements according to the instructions in <u>Section 7.0, Records</u> . Include this information in the SWITS database.

5.69 Storing Polychlorinated Biphenyl Waste and Polychlorinated Biphenyl Items For Disposal [Basis: HNF-RD-15332, Section 2.69]

Actionee	Step	Action
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NOTE: None of the PCB storage for disposal units managed under the scope of the PHMC is considered a PCB commercial storage unit. As such, the commercial storage unit requirements do *not* apply to the storage for disposal units.

Storage for disposal requirements only apply to PCB waste and PCB Items that are 50 ppm PCB or greater, or less than 50 ppm PCB due to dilution. PCB waste at less than 50 ppm PCB may not be subject to the storage for disposal requirements.

Environmental Protection Processes

Actionee	Step	Action
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Additional guidance on storage for disposal of PCB waste and PCB Items can be found in DOE/RL-2001-50, Toxic Substances Control Act (TSCA) Polychlorinated Biphenyls Hanford Site Users Guide, Chapter 4.

Responsible
Manager

1. Determine if the material is a PCB waste and determine classification of the PCB waste according to the instructions in Section 5.58, Identifying and Designating Waste. Contact the TSCA/PCBs POC or Generator Services for assistance in the designation of PCB waste.
2. Base decisions on the storage and disposal of waste containing PCBs on the requirements in 40 CFR 761.50 for the following waste categories;
 - PCB liquids,
 - PCB Items,
 - PCB analytical wastes,
 - PCB remediation waste,
 - PCB bulk product wastes, and/or
 - PCB/radioactive wastes.
3. Clearly mark or label PCB Items listed in 40 CFR 761.40(a) with the large PCB mark (M_L) described in 40 CFR 761.40.
 - a. If the item is too small to accommodate the smallest size M_L, use a smaller PCB mark (M_S).
 - b. Place PCB marks in a position on the exterior of PCB Items, or storage units so any person inspecting or servicing the items or storage units can read the marks easily.
4. Store PCB waste ≥ 50 ppm PCBs or < 50 ppm PCBs due to dilution and PCB Items designated for disposal, except as noted below, in a TSCA-compliant storage for disposal area that meets the requirements of 40 CFR 761.65(b)(1) or in a RCRA storage unit provided the requirements of 40 CFR 761.65(b)(2) are followed.

NOTE: *PCB Small Capacitors*, PCB hydraulic machines meeting 761.60(b)(3)(i)(B), and drained PCB-contaminated articles (< 500 ppm PCBs) destined for disposal do not need to be stored in a PCB storage area meeting the criteria found in 40 CFR 761.65(b).

- a. The following *PCB Items* may be stored temporarily for up to 30 days in an area that does not comply with the requirements of 40 CFR 761.65(b), provided that a notation is attached to the PCB Item or the *PCB container* indicating the date

Environmental Protection Processes

Actionee	Step	Action
		the item was removed from service and the temporary PCB storage area meets the requirements of 40 CFR 761.65(c):
		<ul style="list-style-type: none"> • Non-leaking <i>PCB Articles</i> and PCB Equipment; • Leaking PCB Articles and PCB Equipment if the PCB Items are placed in a non-leaking PCB Container that contains sufficient sorbent materials to absorb any liquid PCBs remaining in the PCB Items; • PCB Containers containing non-liquid PCBs such as contaminated soil, rags, and debris; and • PCB containers containing liquid PCBs at concentrations of ≥ 50 ppm, provided a Spill Prevention, Control, and Countermeasure (SPCC) Plan has been prepared for the temporary storage area and the liquid PCB waste is in DOT authorized packaging.
	b.	Undrained PCB and PCB-contaminated electrical equipment (including large high voltage capacitors) may be stored on pallets outside of a storage facility, as described in 40 CFR 761.65(c)(2), awaiting disposal, provided that they are inspected at least weekly.
	5.	Prepare a SPCC Plan for a temporary PCB storage area storing liquid PCBs ≥ 50 ppm per 40 CFR 761.65(c)(1)(iv) and for any PCB storage area not using DOT-specified containers (e.g., a bulk storage tank) as per 40 CFR 761.65(c)(7)(ii).
	6.	Mark PCB storage areas as specified in 40 CFR 761.40(a)(10).
	7.	Inspect PCB Items, transformers, or voltage regulators in storage for leaks at least once every 30 days.
	8.	Inspect undrained PCB and <i>PCB-contaminated</i> electrical equipment (including large high voltage capacitors) that are stored on pallets outside of a storage facility, as described in 40 CFR 761.65(c)(2), awaiting disposal, at least weekly.
	9.	Keep moveable equipment that comes into direct contact with PCBs while handling PCB waste in the storage area until it is decontaminated using the methods specified in 40 CFR 761.79. (See <u>Section 5.42, Decontaminating Materials and Equipment Contaminated With Polychlorinated Biphenyls.</u>)
	10.	Dispose of PCB waste, except PCB/radioactive waste, within 1 year of the removed-from-service date [refer to 40 CFR 761.65(a)(1)]. Contact the

Environmental Protection Processes

Actionee	Step	Action
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TSCA/PCBs POC to apply for an up to 1-year extension.

11. Update PCB storage information in the SWITS database in support of preparation of the sitewide *PCB Annual Document Log* and the *PCB Annual Report*.

NOTE: The *PCB Annual Document Log* is maintained at the sitewide level. The "official" copy is available on RMIS indicating transmittal of the Log to DOE-RL.

- | | |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EP
Monitoring &
Reporting
Manager | <ol style="list-style-type: none"> 12. Prepare and finalize the <i>PCB Annual Document Log</i>. 13. Prepare the <i>PCB Annual Report</i> for submittal to the U.S. Environmental Protection Agency. |
| All
Employees | <ol style="list-style-type: none"> 14. Report <i>spills</i> or <i>releases</i> of any amount of PCBs to the <i>Occurrence Notification Center (ONC)</i> within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances.</u> |

5.70 Storing Asbestos Waste

[Basis: HNF-RD-15332, Section 2.70]

Actionee	Step	Action
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|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Responsible
Manager | <ol style="list-style-type: none"> 1. Do <i>not</i> discharge visible emissions to the outside air during the transport of <i>regulated asbestos-containing material (RACM)</i>. 2. Ensure vehicles used in the transport of RACM are visibly marked with an approved sign that conforms to 29 CFR 1910.145(d)(4) and 40 CFR 61.149(d). 3. Store asbestos waste that is not immediately transported to a disposal facility in locked containment bins or other securable locations on the Hanford Site. 4. Ensure that all RACM waste received for storage conforms to the following: <ul style="list-style-type: none"> • Is adequately wet when it was packaged for disposal (unless an alternate method in 40 CFR 61.150 is used), and that it is packaged, sealed in leak-tight containers, or put into leak-tight wrapping and visibly labeled. • Containers of RACM and wrapped materials are visibly labeled using warning labels specified by the <i>Occupational Safety and Health Act</i> in 29 CFR 1910.1001(j)(4)(i) and (ii) or 29 CFR 1926.1101(k)(8). • Labeled with the name of the generator and the location where the waste was |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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Environmental Protection Processes

Actionee	Step	Action
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generated, if stored for transport off the facility site.

5. For all asbestos-containing waste material transported, use a *Waste Shipment Record form* similar to that shown in 40 CFR 61.150, Figure 4, and include the following information:
 - Name, address, and telephone number of the waste generator.
 - Name and address of the local, State, or EPA Regional office responsible for administering the asbestos *National Emission Standards for Hazardous Air Pollutants* program.
 - Approximate quantity in cubic meters (cubic yards).
 - Name and telephone number of the disposal site operator.
 - Name and physical site location of the disposal site.
 - Date transported.
 - Name, address, and telephone number of the transporter(s).
 - Certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable regulations.

NOTE: See Section 5.76, Disposing of Asbestos Waste, for processes for disposing of Asbestos Containing Material (ACM).

6. Maintain a copy of the asbestos waste shipment records according to the instructions in Section 7.0, Records.

5.71 Storing Investigation Derived Waste

[Basis: HNF-RD-15332, Section 2.71]

Actionee	Step	Action
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1. Store *investigation derived waste* (IDW) at the waste site or at another storage location specified in the approved Waste Control Plan until analytical data is evaluated for proper waste designation.
 - While in storage, manage IDW in accordance with the approved plan.
2. Store contaminated or suspected contaminated soils to mitigate the spread of contaminants to the environment, (e.g., place on a tarp or containerize).

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Environmental Protection Processes

Actionee	Step	Action
	3.	Manage containers of IDW in accordance with the applicable substantive requirements of 40 CFR 264 Subpart I, WAC 173-303-630, and WAC 173-303-160.
	4.	Label the containers with known major risk(s), dangerous waste codes, and if awaiting analysis, wording which states "Waste Pending Analysis" with the date of initial sampling.
	5.	If IDW cannot be treated to meet the waste acceptance criteria for the approved disposal facility, store the IDW on the waste site or in a centralized storage area pending disposal at an appropriate facility.
	6.	If after characterization of the IDW is completed, the waste must be stored for longer than 6 months, request that DOE-RL obtain concurrence from the <i>Lead Regulatory Agency</i> on the storage, treatment, and disposal options and schedule for disposition of the waste.
	7.	Report any release of IDW according to the process in <i>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</i> .

5.72 Performing Treatability Studies

[Basis: HNF-RD-15332, Section 2.72]

Actionee	Step	Action
Responsible Manager	1.	Contact the <u>RCRA Treatability (Studies) POC</u> before conducting any treatability studies.
EP Monitoring & Reporting Manager	2.	Notify the Washington State Department of Ecology 45 days before beginning a treatability study when the treatment technology does not appear on the <u>approved list</u> available from the Treatability POC (see the <u>EP website</u>).
Responsible Manager	3.	Manage samples generated or collected for treatability studies in accordance with WAC 173-303-071(3)(r) and (s). (See <u>Section 5.63, Managing Waste Characterization and Treatability Study Samples and Their Residues</u> .)

NOTE: Samples generated or collected for treatability studies are not subject to the manifesting, labeling, packaging, marking, placarding, or 90-day accumulation standards of WAC 173-303-180, -190, and -200 when the samples are managed in compliance with WAC 173-303-071(3)(r) and (s).

Environmental Protection Processes

Actionee	Step	Action
EP Monitoring & Reporting Manager	4.	Annually request information required by WAC 173-303-071(3)(r) and (s) from Responsible Managers of current treatability studies. Specify the format and the schedule for the submittal.
Responsible Manager	5.	Submit information required by WAC 173-303-071(3)(r) and (s) to EP Monitoring & Reporting in accordance with the format and schedule specified by EP Monitoring & Reporting.
EP Monitoring & Reporting Manager	6.	Prepare the information required by WAC 173-303-071(3)(r) and (s) for input to the <i>Hanford Site Treatability Study Report</i> prepared by Pacific Northwest National Laboratory.

5.73 Performing Generator Treatment of Dangerous and/or Mixed Wastes

[Basis: HNF-RD-15332, Section 2.73]

Actionee	Step	Action
Responsible Manager	1.	Confirm that a notification of the treatment by generator (TBG) activity has been made using a <i>Form 2, Notification of Dangerous Waste Activities</i> , submitted to the Washington State Department of Ecology. Conduct TBG activities onsite in 90-day accumulation areas or satellite accumulation areas in accordance with WAC 173-303-170(3) and Ecology Publication # 96-412.
	a.	Determine if a waste analysis plan is required for the activity per 40 CFR 268.7(a)(5). Contact the <u>RCRA Generator Activities POC</u> for assistance in determining if a waste analysis plan is required.

NOTE: A waste analysis plan is required when the treatment needs to meet applicable federal land disposal restriction requirements.

2. If a waste analysis plan is required per 40 CFR 268.7(a)(5), prepare the waste analysis plan prior to initiation of treatment activities.
3. Maintain a copy of the waste analysis plan as part of generator activity records according to the instructions in Section 7.0, Records.
4. Treat waste according to the instructions in Section 5.74, Treating Dangerous and/or Mixed Waste.

Environmental Protection Processes

5.74 Treating Dangerous and/or Mixed Waste

[Basis: HNF-RD-15332, Section 2.74]

Actionee	Step	Action
Responsible Manager	1.	Treat dangerous and/or mixed waste only as follows: <ul style="list-style-type: none">• In accordance with treatment-by-generator (TBG) requirements; <i>or</i>• At an interim status or final status RCRA TSD unit in accordance with the respective waste analysis plan.

NOTE: A RCRA TSD unit waste analysis plan discusses the treatment activity when sampling and analysis of the waste is required.

2. Do *not* dilute restricted waste as a substitute for treatment of the waste except as noted below.

NOTE: Mixing or diluting waste or waste treatment residue is *prohibited* if done to achieve a treatment standard specified under the LDR or to circumvent any of the prohibitions under the LDR.

Dilution is *not* considered impermissible dilution for ignitable, corrosive, or reactive waste with the treatment standard of deactivation (DEACT) in 40 CFR 268.40.

Dilution of waste to facilitate centralized aggregation of wastes (e.g., wastes destined for Double-Shell Tanks) is not considered impermissible dilution.

3. Determine compliance with state and federal LDR treatment requirements independently when addressing WAC 173-303-140(2)(a).
4. Test treated waste to determine whether federal treatment standards have been met for concentration-based treatment standards as specified in the RCRA TSD unit's waste analysis plan or the TBG waste analysis plan. Do *not* use process knowledge to determine whether federal treatment standards have been met for concentration-based treatment standards.

NOTE: The organization managing a Hanford Facility RCRA TSD unit can require that testing for LDR certification purposes be performed on Hanford Site generated waste to meet the disposal TSD unit testing requirements to avoid duplicative testing.

5. Treat residues that are or become separated from hazardous debris, as defined in WAC 173-303-040, to the waste-specific treatment standards for the waste contaminating the debris.

Environmental Protection Processes

Actionee	Step	Action
	6.	Treat restricted waste in surface impoundments meeting the minimum technological standards (groundwater monitoring, double liners, and leachate collection systems) based on EPA's approval only if such treatment is in compliance with the requirements of 40 CFR 268.4 (i.e., Liquid Effluent Retention Facility).
	7.	Treat DOE-RL mixed waste designated as Extremely Hazardous Waste (EHW) that is destined for land disposal on the Hanford Site prior to disposal, or as part of disposal, using reasonable methods of treatment, detoxification, neutralization, or other waste management methodologies designed to mitigate hazards associated with these wastes, as required by applicable federal and state laws and regulations.
	8.	When decharacterizing a waste, prepare and submit the appropriate LDR documentation required by 40 CFR 268.9(d) following treatment. If the treated waste is no longer a hazardous and/or mixed waste and will not be managed in a RCRA TSD unit, contact the <u>RCRA Waste Designation, Land Disposal Restrictions (LDR), & LDR Report Coordinator POC</u> and request the POC prepare and submit a letter to the Washington State Department of Ecology.
	9.	Maintain records of dangerous waste analysis and treatment in accordance with 40 CFR 268.7, 40 CFR 268.9(d), and the instructions in <u>Section 7.0, Records</u> .

NOTE: The term "waste analysis" is interpreted broadly in WAC 173-303-300(2) to include both laboratory testing and process knowledge information.

5.75 Disposing Of Containerized Waste [Basis: HNF-RD-15332, Section 2.75]

Actionee	Step	Action
Responsible Manager	1.	Macroencapsulate lead used for its shielding properties in landfilled disposal packages prior to backfilling the waste package (except for de-fueled naval reactors) if the lead will no longer serve a purpose after disposal.
	2.	When disposing of containerized waste in a landfill, ensure that the container is: <ul style="list-style-type: none"> At least 90 percent full at the time of placement in a landfill, <i>or</i> Is crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill, <i>or</i> Is subject to alternate unit-specific Hanford Facility RCRA Permit conditions for disposal.

Environmental Protection Processes

5.76 Disposing of Asbestos Waste

[Basis: HNF-RD-15332, Section 2.76]

Actionee	Step	Action
Responsible Manager	1.	When disposing of asbestos waste at an off-site disposal facility, dispose of the asbestos waste per the requirements of the respective disposal contracts in place. Contact the Asbestos POC for guidance.
	2.	Dispose of asbestos waste per the requirements of 40CFR 61.150, in a disposal site.
NOTE: See <u>HNF-RD-15097, Asbestos Control - Construction Industry</u> , and <u>HNF-RD-15245, Asbestos Control - General Industry</u> , for requirements for the disposal of asbestos.		
	3.	Handle and transport asbestos waste in a manner that prevents any visible emissions.
	4.	Ensure that all <i>regulated asbestos-containing material</i> (RACM) waste shipped conforms to the following: <ul style="list-style-type: none">• Is adequately wet when it is packaged for disposal (unless an alternate method in 40 CFR 61.150 is used), and that it is packaged, sealed in leak-tight containers, or put into leak-tight wrapping and visibly labeled.• Containers of RACM and wrapped materials are visibly labeled using warning labels specified by the <i>Occupational Safety and Health Act</i> in 29 CFR 1910.1001(j)(4)(i) and (ii) or 1926.1101(k)(8).• Labeled with the name of the generator and the location where the waste was generated, if stored for transport off the facility site.
	5.	Ensure vehicles used in the transport of RACM are visibly marked with an approved sign that conforms to 29 CFR 1910.145(d)(4) and 40 CFR 61.149(d).
	6.	For all asbestos-containing waste material transported, use a <i>Waste Shipment Record Form</i> similar to that shown in 40 CFR 61.150, Figure 4, and include the following information: <ul style="list-style-type: none">• Name, address, and telephone number of the waste generator.• Name and address of the local, State, or EPA Regional office responsible for administering the asbestos <i>National Emission Standards for Hazardous Air Pollutants</i> program.• Approximate quantity in cubic meters (cubic yards).

Environmental Protection Processes

Actionee	Step	Action
		<ul style="list-style-type: none"> Name and telephone number of the disposal site operator. Name and physical site location of the disposal site. Date transported. Name, address, and telephone number of the transporter(s). Certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable regulations.
	7.	Provide a copy of the asbestos waste shipment record to the disposal facility at the time the RACM is delivered to the waste disposal site.
<p>NOTE: If the asbestos waste is handled through another transporter, a copy of the waste shipment record signed by the owner or operator of the designated disposal site should be received by the waste generator within 35 days of the date the waste was accepted by the initial transporter.</p> <p>a. If a signed copy of the waste shipment record is not received within 35 days of sending the asbestos waste to an offsite disposal site, contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment. Contact the <u>Asbestos Program Manager</u> if a signed copy of the waste shipment record is not received within 45 days.</p>		
Responsible Manager – Asbestos Landfill	8.	Ensure that there are no visible emissions to the outside air from an active waste disposal site where asbestos-containing waste material has been deposited or use one of the alternate methods identified in 40 CFR 61.154 (c) or (d).
	9.	Ensure that either a natural barrier adequately deters access by the general public, or install and maintain warning signs and fencing in accordance with 40 CFR 61.154(b)(1) and 40 CFR 61.154(b)(2).
	10.	Maintain waste shipment records in accordance with 40 CFR 61.154(e).
	11.	Operate the landfill in accordance with the requirements outlined in 40 CFR 61.154.
	12.	Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (or cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.

Environmental Protection Processes**5.77 Disposing of Sanitary Waste in Dumpsters**

[Basis: HNF-RD-15332, Section 2.77]

Actionee	Step	Action
All Employees	1.	Dispose of <i>only</i> the following sanitary waste items in the sanitary waste dumpsters: <ul style="list-style-type: none">Paper and cardboard.Wood and miscellaneous debris.Construction debris.Metals.Plastic.Grounds maintenance waste.Food waste.Textiles.Glass.Personnel hygiene, medical diagnostic, first aid, and similar waste that are not medical waste as defined by State law.Rubber and leather waste.
	2.	Do <i>not</i> dispose of the following waste items in the sanitary waste dumpsters: <ul style="list-style-type: none">Hazardous materials.Dangerous waste.Free liquids.Asbestos-containing materials.Demolition waste that can be disposed at Hanford Site demolition landfills.Radioactive waste.<i>Toxic Substances Control Act</i>-regulated waste.Medical waste (29 CFR 1910.1030).

Environmental Protection Processes

Actionee	Step	Action
	3.	Dispose of sanitary waste that is held in metal or plastic drums or other containers as a containerized waste according to the instructions in <u>Section 5.80, Disposing of Nondangerous, Nonradioactive, Containerized Waste</u> .
	4.	Follow the applicable procedures found in WAC 173-303-160 before disposing of empty containers in a dumpster.

NOTE: See Section 5.78, Disposing of Empty Containers, for instructions to dispose of empty containers.

5. Deliver nonradioactive, nondangerous solid waste from the Hanford Site directly to the current Hanford Site sanitary waste contractor as follows:
 - a. Complete a *Solid Waste Disposal Receipt – Bulk and Containerized Waste form* (Site Form A-6003-116) for the load.
 - b. If the waste originates from a category 2 or 3 area, as described in the Solid Waste Disposal Receipt, arrange for a verification radiological survey of the load and document the determination on the form.
 - c. Arrange for transportation to the offsite landfill contractor.
 - d. Ensure the completed *Solid Waste Disposal Receipt – Bulk and Containerized Waste form* accompanies the load.
 - e. Upon arrival at the disposal site, submit a copy of the *Solid Waste Disposal Receipt – Bulk and Containerized Waste form* to the contractor and follow instructions for disposal of the load.
 - f. Maintain a copy of the *Solid Waste Disposal Receipt – Bulk and Containerized Waste form* and submit the form to Transportation Operations (Mail Stop L4-19) for invoicing.

5.78 Disposing of Empty Containers

[Basis: HNF-RD-15332, Section 2.78]

Actionee	Step	Action
All Employees	1.	Prepare empty containers in accordance with the requirements in WAC 173-303-160, before disposing in a solid waste landfill or dumpster as follows: <ol style="list-style-type: none"> a. Ensure containers meet the definition for <i>empty</i> according to the provisions of WAC 173-303-160(2)(a) as follows: <p>"All wastes in it have been taken out that can be removed using practices commonly employed to remove materials from that type of container or inner</p>

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Environmental Protection Processes

Actionee	Step	Action
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liner (e.g., pouring, pumping, aspirating, etc.) and, no more than one inch of waste remains at the bottom of the container or inner liner, or the volume of waste remaining in the container or inner liner is equal to three percent or less of the container's total capacity or, if the container's total capacity is greater than one hundred ten gallons, the volume of waste remaining in the container or inner liner is no more than 0.3 percent of the container's total capacity. A container which held compressed gas is empty when the pressure inside the container equals or nearly equals atmospheric pressure;"

- b. If the containers held materials that would designate as acute hazardous waste, toxic extremely hazardous waste, or pesticides bearing the "danger" or "warning" labels, perform additional triple rinsing according to the provisions of WAC 173-303-160(2)(b).

NOTE: When triple rinsing, the volume of the cleaner or solvent used for each rinsing is 10 percent or more of the container's total capacity, or of sufficient quantity to thoroughly decontaminate the container.

- c. Manage residues that are or become separated from an empty container according to the waste designation requirements in Section 5.58, Identifying and Designating Waste.
2. If the container held a DOT hazardous material perform the following:
 - Remove, obliterate, or securely cover the hazardous material shipping name and identification number markings, any hazard warning labels or placards, and any other markings indicating that the material is hazardous.
 - Ensure the container is sufficiently cleaned of residue and purged of vapors to remove any potential hazard.
 3. Remove the bottoms and tops from empty drums if the empty containers are mixed with other sanitary waste.

NOTE: Empty drums that have been prepared according to the instructions in this section can alternatively be disposed of without removing the tops and bottoms through the process for containerized waste described in Section 5.80, Disposing of Nondangerous, Nonradioactive, Containerized Waste.

4. Dispose of prepared empty containers according to the process in Section 5.77, Disposing of Sanitary Waste in Dumpsters, or Section 5.80, Disposing of Nondangerous, Nonradioactive, Containerized Waste.

Environmental Protection Processes

HNF-PRO-15333, Rev. 0

Published: August 8, 2003

Page 184 of 231

Actionee	Step	Action
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NOTE: Empty metal containers can be crushed and accumulated as scrap metal.

5.79 Disposing of Inert and Demolition Waste (Nonradioactive, Nondangerous)

[Basis: HNF-RD-15332, Section 2.79]

Actionee	Step	Action
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NOTE: Several inert and demolition waste landfills are authorized for use on the Hanford Site. Pit 9 is located north of the 300 Area. The 183-BC, 183-F, 183-H, 183-KW, and 183-KE Clearwells are located in the 100 Areas.

Landfill Operator	1. Operate an inert and demolition landfill according to the requirements of WAC 173-304-461, except that obtaining a permit is not necessary.
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NOTE: Additional regulations for operating, environmental monitoring, closure and post-closure planning, and financial assurance requirements for inert landfills, including new criteria for an "inert" material, are contained in WAC 173-350. Effective dates for existing facilities are as follows:

- All applicable operating, environmental monitoring, closure and post-closure planning, and financial assurance requirements by February 10, 2005.
- All applicable performance and design requirements, other than location or setback requirements, by February 10, 2006.
- Closure requirements of WAC 173-304, if closed on or before February 10, 2004.
- Closure requirements of WAC 173-350, if closed after February 10, 2004.
 - a. Post a sign at the entrance to each landfill site indicating the types of waste prohibited from being disposed in that landfill.
 - b. Accept *only* inert waste or demolition waste at the landfill. (See WAC 173-304-100 for definitions of "inert waste" and "demolition waste.")
 - c. Do *not* accept demolition waste from commercial sources and waste from off the Hanford Site.
 - d. Minimize fugitive dust generation during construction or related activities, or during any operational activities.
 - e. Maintain a record of the weights or volumes and types of waste disposed of at

Environmental Protection Processes

Actionee	Step	Action
		each site.
	f.	Cover timbers, wood, and other combustible waste as needed during the summer months to avoid a fire hazard.
	g.	Prevent unauthorized disposal by controlling entry when the facility is not being used (i.e., lockable gate or barrier).
Responsible Manager	3.	Prior to disposal of inert or demolition waste, determine if the waste meets the radiological release criteria in accordance with <u>HNF-EP-0063, Hanford Solid Waste Acceptance Criteria</u> , Appendix F.
	4.	Contact the <u>Inert and Demolition Landfill POC</u> for access to any of the inert and demolition landfills.
	5.	Dispose of only inert waste or demolition waste in any inert and demolition landfill located on the Hanford Site.

5.80 Disposing of Nondangerous, Nonradioactive, Containerized Waste

[Basis: HNF-RD-15332, Section 2.80]

Actionee	Step	Action
Responsible Manager	1.	Dispose of nonradioactive, nondangerous, containerized waste through the Hanford Site sanitary waste contractor.

NOTE: Containerized waste is considered to be any waste held in metal or plastic drums or other containers.

2. Ensure containerized waste meets the following criteria to be accepted at the Hanford Site sanitary waste contractor transfer station:
 - Does *not* hold any free liquids.
 - Does *not* contain any dangerous waste, radioactive waste, or any other form of regulated waste (e.g., asbestos, PCBs).
 - Weighs less than 454 kg (1,000 lbs.)
 - Is part of an approved profile.
3. Obtain a radiological release of the waste in accordance with HNF-EP-0063, Hanford Solid Waste Acceptance Criteria, Appendix F.

Environmental Protection Processes

Actionee	Step	Action
	4.	Contact the <u>Nonradioactive, Nondangerous (Containerized) Waste POC</u> in advance to make arrangements to dispose of containerized waste weighing in excess of 454 kg (1,000 lbs.).
	5.	Mark containers with the Hanford Site sanitary waste contractor-assigned waste profile number and a nonregulated waste label. <ul style="list-style-type: none"> a. Contact the Nonradioactive, Nondangerous (Containerized) Waste POC to determine if the waste is part of an approved profile. b. If the waste is not part of an approved profile, make arrangements with the Hanford Site sanitary waste contractor to obtain an approved profile. Request the <u>Nonradioactive, Nondangerous (Containerized) Waste POC</u> to assist in developing an approved profile.

5.81 Disposing of Polychlorinated Biphenyl Waste and Polychlorinated Biphenyl Items

[Basis: HNF-RD-15332, Section 2.81]

Actionee	Step	Action
Responsible Manager	1.	Base decisions on the disposal of waste containing PCBs on the requirements delineated in 40 CFR 761.50 for the following: <ul style="list-style-type: none"> • PCB liquids, • PCB Items, • PCB analytical wastes, • PCB remediation waste, • PCB bulk product wastes, and/or • PCB/radioactive waste. <p>See <u>Section 5.58, Identifying and Designating Waste.</u></p>
	2.	Dispose of PCB waste, except PCB/radioactive waste, within 1 year of the removed-from-service date [refer to 40 CFR 761.65(a)(1)]. <ul style="list-style-type: none"> a. Contact the <u>TSCA/PCBs POC</u> to apply for an up to 1-year extension. b. If storing a PCB/radioactive waste in storage for > 1 year, document the efforts to secure disposal pathways per 40 CFR 761.65(a)(1)(ii) and (iii). Contact the <u>TSCA/PCBs POC</u> for assistance.
	3.	Report and manifest offsite shipments of PCBs and PCB Items per 40 CFR 761.207 and 40 CFR 761.208.

Environmental Protection Processes

Actionee	Step	Action
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4. If a copy of the manifest with the handwritten signature of the owner or operator of the designated PCB commercial storage or disposal facility is not received within 35 days of the date the waste was accepted by the initial transporter, prepare an exception report according to 40 CFR 761.215.
5. Obtain and maintain Certificates of Disposal for each shipment of PCB waste per 40 CFR 761.218.

NOTE: This requirement does not apply to onsite shipments of waste for storage.

6. Include PCB disposal information in the Solid Waste Information and Tracking System (SWITS) database in support of preparation of the sitewide *PCB Annual Document Log* and the *PCB Annual Report*.

NOTE: The *PCB Annual Document Log* is maintained at the sitewide level. The "official" copy is available on RMIS indicating transmittal of the Log to DOE-RL.

EP
Monitoring
& Reporting
Manager

7. Update and finalize the *PCB Annual Document Log*.
8. Prepare the *PCB Annual Report* for submittal to EPA.

5.82 Disposing of Investigation Derived Waste [Basis: HNF-RD-15332, Section 2.82]

Actionee	Step	Action
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Responsible
Manager

1. Return *investigation derived waste* (IDW) soil and IDW *slurry waste* containing hazardous and radiological constituents below dangerous waste designation limits, and the Model Toxics Control Act (MTCA) soil cleanup standards, and that have been released from a radiological perspective, to the ground at or near the point of excavation.
2. Dispose of contaminated solid IDW that meets the Environmental Restoration Disposal Facility (ERDF) waste acceptance criteria and, if applicable, meets the land disposal restriction standards for underlying hazardous constituents at the ERDF.
3. Dispose of miscellaneous solid waste (MSW) IDW as follows:
 - Where analytical data indicate that the dangerous and radioactive constituents are below established release criteria, dispose of contact MSW at an appropriate

Environmental Protection Processes

Actionee	Step	Action
		facility.
		<ul style="list-style-type: none"> • If analyses indicate that contaminant limits are exceeded, dispose of the contact MSW as IDW at ERDF or other appropriate facility. • Segregate non-contact MSW from all other material generated at the unit and dispose of at an appropriate facility.
	4.	Dispose of miscellaneous material that does not require disposal at ERDF at an appropriate solid waste disposal facility.

5.83 Distributing, Excessing, or Disposing of Appliances Containing Refrigerants

[Basis: HNF-RD-15332, Section 2.83]

Actionee	Step	Action
Responsible Manager	1.	Before distributing or excessing an <i>operational</i> appliance containing refrigerants, request that a certified refrigerant technician examine the appliance and verify that the appliance is operational and has a fully assembled <i>refrigerant</i> circuit. Have the technician generate a signed statement of such condition, and provide a copy of the verification statement along with the equipment when it is excessed.
	2.	Before distributing or excessing a <i>non-operational</i> appliance containing refrigerants, or disposing of any appliance containing refrigerants, arrange to recover the refrigerant using only approved recycling/recovery equipment by a certified refrigerant technician.
Certified Refrigerant Technician	a.	Recover the refrigerant from an appliance to an EPA-approved recovery or recycling machine to the levels shown in Table 5, or evacuate a <i>small appliance</i> to 4 inches of mercury (for purposes of disposal, recover 90% of the refrigerant in the appliance when the compressor in the appliance is operating, or 80% of the refrigerant in the appliance when the compressor in the appliance is not operating).

Table 5
Required Levels of Evacuation for Air Conditioning, Refrigeration, and Recovery/ Recycling Equipment

In Inches of Vacuum (Relative to Standard Atmospheric Pressure of 29.9 Inches Hg)

Type of Appliance	Using recovery or recycling equipment manufactured or imported	
	Before 11/15/1993	On or after 11/15/1993
HCFC-22 appliance, or isolated component of such appliance, normally containing less than 200 pounds	0	0

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Environmental Protection Processes

of refrigerant.		
HCFC-22 appliance, or isolated component of such appliance, normally containing 200 pounds or more of refrigerant.	4	10
Other high-pressure appliance, or isolated component of such appliance, normally containing less than 200 pounds of refrigerant.	4	10
Other high-pressure appliance, or isolated component of such appliance, normally containing 200 pounds or more of refrigerant.	4	15
Very high pressure appliance.	0	0
Low-pressure appliance.	25	25 mm Hg absolute

Actionee	Step	Action
Certified Refrigerant Technician		<p>b. If the required levels of evacuation are not attainable, or would substantially contaminate the refrigerant being recovered due to leaks in the appliance or component, then:</p> <ul style="list-style-type: none"> • Isolate leaking from non-leaking components wherever possible. • Evacuate non-leaking components to the levels specified in <u>Table 5</u>. • Evacuate leaking components to the lowest level that can be attained without substantially contaminating the refrigerant. • Prevent the level from exceeding 0 psig. <p>c. Verify and generate a signed statement that the applicable level of evacuation has been reached in the appliance or component before it was opened. Provide the signed statement to the Responsible Manager.</p>
Refrigerated Equipment Services	3.	Before distributing or excessing an appliance, remove any free liquids, such as oil, and dispose of or recycle the materials. (See <u>Section 5.58, Identifying and Designating Waste</u> , and <u>Section 5.86, Accumulating Used Oil for Recycling, and Managing Used Automotive Oil Filters</u>).
Responsible Manager	4.	<p>Distribute or excess only refrigerant equipment that has a verification by a certified refrigerant technician that the equipment is:</p> <ul style="list-style-type: none"> • An operational appliance containing refrigerant and has been verified to be operational and have a fully assembled refrigerant circuit, <i>or</i> • A non-operational appliance containing refrigerant and has been verified to

Environmental Protection Processes

Actionee	Step	Action
		have had the refrigerant evacuated.
	a.	Provide a copy of the verification statement along with the equipment when it is excessed.
	5.	Verify that the excess property buyer of any Class I or II refrigerants has been certified as a Type I, Type II, Type III, or universal technician.
	6.	Maintain records of signed statements verifying proper refrigerant recovery according to the instructions in <u>Section 7.0, Records</u> .

5.84 Managing Recyclable or Reclaimable Materials Through the Centralized Consolidation/Recycling Center

[Basis: HNF-RD-15332, Section 2.84]

Actionee	Step	Action
Responsible Manager	1.	Send <i>only</i> the following types of non-radioactive recyclable materials to the Centralized Consolidation/Recycling Center (CCRC): <ul style="list-style-type: none"> Lead acid batteries. Universal waste batteries. Crushed and intact fluorescent lamps. Intact/unintentionally broken mercury vapor lamps (high and low pressure). Intact sodium vapor lamps (high and low pressure). Intact/unintentionally broken incandescent lamps. Electrical ballasts or capacitors. Aerosol products. Elemental mercury (thermostats, switches, and bulk liquids).

NOTE: Other recyclable materials administered by the CCRC include: shop towels, used oil, and spent antifreeze.

- Before sending crushed fluorescent lamps for recycle to the CCRC, determine whether they should be managed as dangerous or non-dangerous waste.
 - Manage the crushed fluorescent lamps according to the determination.
 - Assume fluorescent lamps are dangerous waste unless demonstrated to be nonregulated.
- When the CCRC is to be used to manage a particular dangerous or nondangerous waste type, manage materials at the generating location in accordance with the requirements of HNF-EP-0863, Management Plan for Recyclable Materials

Environmental Protection Processes

Actionee Step

Action

Administered by Hanford's Centralized Consolidation/Recycling Center, Section 3, "Standards for Management of Recyclable Materials at Facilities Prior to Consolidation at CCRC."

4. Accumulate recyclable materials listed in Step 5.84.1 at the generating location as follows:
 - a. Ensure that personnel who set up, maintain, or dismantle accumulation areas receive a briefing on the accumulation standards for generators for each type of recyclable material managed under their purview.
 - b. Mark containers used to collect recyclable material with the words "Recycle Accumulation Area for [insert the name of the material]." Use a mark provided by, or approved by, CCRC personnel.
 - c. Accumulate these materials in a manner and location that:
 - Maintains container integrity.
 - Prevents releases or spills.
 - Avoids reaction of incompatible materials.
 - d. Store flammables in accordance with standards established by FH procedures.
 - e. When accumulating mercury-containing equipment, take measures, as practicable, to minimize breakage that would result in the release of mercury.
 - f. When accumulating batteries, perform the following:
 - Protect the battery contacts with tape or packaging to avoid short-circuiting.
 - Cap, plug, or cover over the opening of liquid-filled batteries to prevent spills or releases.

NOTE: It is recommended that batteries be accumulated by battery type.

- g. When accumulating lamps, collect each lamp type separately to avoid repackaging. Take measures, as practicable, to minimize breakage of intact lamps.

Environmental Protection Processes

Actionee	Step	Action
	5.	Accumulate used oil at the generator location according to the process in <u>Section 5.86, Accumulating Used Oil for Recycling, and Managing Used Automotive Oil Filters</u> .
	6.	Accumulate spent antifreeze at the generator location according to the process in <u>Section 5.87, Accumulating Spent Antifreeze for Recycling</u> .
	7.	Accumulate used shop towels at the generator location according to the process in <u>Section 5.88, Accumulating Used Shop Towels for Recycling</u> .
	8.	Perform the following before sending a recyclable material (listed in <u>Step 5.84.1</u>) to the CCRC: <ul style="list-style-type: none"> a. Complete a <u>CCRC form</u> for the recyclable material being accumulated. b. Complete a <u>Radiological Release Certification form</u> (e.g., in accordance with <u>HNF-EP-0063, Hanford Site Waste Acceptance Criteria</u>, or equivalent).
	9.	Transport recyclable materials to the CCRC. <ul style="list-style-type: none"> a. Include a copy of the completed <u>CCRC form</u> and <u>Radiological Release Certification form</u> with the shipment. b. If the recyclable material meets the definition of a DOT Hazardous Material, transport the material to the CCRC in compliance with DOT's Hazardous Materials Regulations (49 CFR, SubChapter C, Sections 171-180).
CCRC Manager	10.	Manage recyclable material at the CCRC as follows: <ul style="list-style-type: none"> a. Ensure containers are properly marked. b. Upon receipt at the CCRC, evaluate the recyclable material under WAC 173-303-016 and WAC 173-303-017 to determine if it is a solid waste and to determine the disposition pathway for the material. Manage the materials according to the standards in <u>HNF-EP-0863, Management Plan for Recyclable Materials Administered by Hanford's Centralized Consolidation/Recycling Center</u>. c. Evaluate dangerous waste recycled at the CCRC to determine if a <u>Land Disposal Restriction Notification form</u> must accompany the offsite shipment in

Environmental Protection Processes

Actionee	Step	Action
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accordance with 40 CFR 268.7.

- d. Identify materials that are subsequently determined to be a waste in the *Annual Dangerous Waste Report*.

Responsible Manager 11. If additional recyclable dangerous or nondangerous waste types are identified that could be sent to the CCRC, contact the RCRA General POC for assistance.

RCRA General POC 12. Obtain approval from the Washington State Department of Ecology (Ecology) before any new dangerous waste stream is accepted at the CCRC in accordance with the plan approved by Ecology (i.e., HNF-EP-0863, Management Plan for Recyclable Materials Administered by Hanford's Centralized Consolidation/Recycling Center).

5.85 Managing Lead-Acid Batteries That Will Not Be Sent to the Centralized Consolidation/Recycling Center
 [Basis: HNF-RD-15332, Section 2.85]

Actionee	Step	Action
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|---------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Responsible Manager | 1. | If lead-acid batteries are not sent through the Centralized Consolidation/Recycling Center, manage these batteries in accordance with the Universal Waste provisions in WAC 173-303-573 in lieu of WAC 173-303-120(3) and WAC 173-303-520. |
| | 2. | <p>If generating, transporting, or storing spent lead-acid batteries (but not reclaiming them), perform the following in addition to the requirements in WAC 173-303-573:</p> <ul style="list-style-type: none"> • Recycle spent lead-acid batteries whenever possible as a method of site-wide waste minimization. • Ensure accumulated spent batteries do not freeze. • Report <i>spills or releases</i> to the <i>Occurrence Notification Center (ONC)</i> within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u>. • Ensure reclaimers have the appropriate permits and can accept the spent batteries. • Ensure adequate protection to minimize and prevent release during storage. |
| | 3. | Designate the lead-acid batteries according to the process in <u>Section 5.58, Identifying and Designating Waste</u> . |

Environmental Protection Processes

5.86 Accumulating Used Oil for Recycling and Managing Used Automotive Oil Filters

[Basis: HNF-RD-15332, Section 2.86]

Actionee	Step	Action
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NOTE: This section does not apply to mixtures of used oil and listed hazardous waste. Such mixtures are managed as a dangerous waste.

Responsible
Manager

1. Do *not* apply used oil as a dust suppressant.
2. Manage used oil filters as follows *or* designate the used oil filters according to the process in Section 5.58, Identifying and Designating Waste and manage them accordingly:
 - a. Puncture the filter.
 - b. Drain the filter for at least 24 hours.
 - c. Recycle the filter as scrap metal.

NOTE: Used oil filters recycled as scrap metal do not need to be managed as dangerous waste, provided the filters have been punctured and drained for 24 hours.

Dangerous waste recycled as scrap metal does *not* require completing a waste designation.

3. Clearly label used oil containers and aboveground tanks, and fill pipes used to transfer used oil to underground storage tanks, with the words "Used Oil."
4. Store used oil as follows:
 - Manage used oil storage areas that store an aggregate of >1,320 gallons of oil in containers (55 gallons or greater) or tanks according to an applicable Spill Prevention Control and Countermeasure (SPCC) Plan (see 40 CFR 112).
 - Ensure containers and aboveground tanks are in good condition (e.g., no severe rusting, apparent structural defects or deterioration).
 - No visible leaks.
 - Keep containers closed at all times except when adding or removing used oil.
5. When opening, handling, managing, or storing containers or tanks, take precautions to not cause the container or tank to leak or rupture.

Environmental Protection Processes

Actionee	Step	Action
	6.	Presume that used oil containing more than 1,000 parts per million total halogens is a dangerous waste because the oil is presumed to have been mixed with halogenated dangerous waste listed in WAC 173-303-9904.
NOTE: Demonstrating the used oil does not contain dangerous waste could rebut this presumption. If this presumption is not rebutted, WAC 173-303-515 cannot be used for the oil.		
Used oil separated from rags or sorbent materials is classified as used oil. The rags or sorbent material are identified and characterized separately.		
Used oil designated as a dangerous waste to be burned for energy recovery can be managed according to the reduced requirements of WAC 173-303-120(5). If used oil designates as extremely hazardous waste (EHW), or has been mixed with one or more listed dangerous wastes, manage the used oil burned for energy recovery in accordance with WAC 173-303-510.		
	7.	Before offering used oil for shipment, obtain a completed <i>Radiological Release Certification form</i> (e.g., <u>HNF-EP-0063</u> , <i>Hanford Site Waste Acceptance Criteria</i> , or equivalent) and include it with the shipment.
	8.	Contact the <u>CCRC POC</u> to collect the used oil.
	9.	If self-transporting used oil off the Hanford site, limit the quantity of used oil to ≤ 55 gallons per vehicle trip.
	10.	Report <i>spills or releases</i> of used oil to the <i>Occurrence Notification Center (ONC)</i> within 30 minutes according to the instructions in <u>Section 5.56, Reporting and Responding to Spills/Releases, Fires, and Explosions; and Environmental Permit or Regulatory Exceedances or Potential Non-Compliances</u> .
CCRC or recycle/disposal organization	11.	Maintain records associated with the offsite management of used oil according to the instructions in <u>Section 7.0, Records</u> . Maintain records of used oil delivered directly to a burner in accordance with 40 CFR 279.24.

5.87 Accumulating Spent Antifreeze for Recycling

[Basis: HNF-RD-15332, Section 2.87]

Actionee	Step	Action
Generator	1.	If spent <i>antifreeze</i> is mixed with another dangerous waste, manage the waste according to WAC 173-303-170 through WAC 173-303-230 and not through the following process.
	2.	Accumulate spent antifreeze, that is destined to be recycled, at the generator site as

Environmental Protection Processes

Actionee	Step	Action
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follows:

- a. Mark containers (or tanks) used to store spent antifreeze with the words "Spent Antifreeze."
- b. Store spent antifreeze in a manner that prevents release to the environment (e.g., compatible containers, on impermeable surfaces, or on secondary containment).

NOTE: Spent antifreeze that is destined to be recycled can be accumulated onsite, and in any amount for any length of time.

3. Before shipping spent antifreeze, perform the following:

- Obtain a completed *Radiological Release Certification form* (e.g., HNF-EP-0063, *Hanford Site Waste Acceptance Criteria*, or equivalent).
- Prepare a *Certification of Spent Antifreeze form*.

4. Contact the CCRC POC to recycle spent antifreeze.

- a. Include a copy of the completed *Radiological Release Certification form* and *Certification of Spent Antifreeze form* with the shipment.

CCRC

5. Designate spent antifreeze according to the process in Section 5.58, *Identifying and Designating Waste*.
6. Maintain records as proof of reclamation/recycling for 5 years according to the instructions in Section 7.0, *Records*.
7. Maintain a spent antifreeze recycling contract for use by Hanford Site projects and contractors.

5.88 Accumulating Used Shop Towels for Recycling

[Basis: HNF-RD-15332, Section 2.88]

Actionee	Step	Action
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NOTE: Used shop towels are considered used cloth (or other durable material), wipers, rags, or towels that become too soiled for further use and are recycled, such as by being cleaned by a laundry service. This section does *not* apply to disposable used shop towels.

Used shop towels contaminated with radionuclides or PCBs cannot be sent to the CCRC for

Environmental Protection Processes

Actionee	Step	Action
		cleaning by the commercial laundry service provider.

Generator

1. Minimize the amount of hazardous substances on shop towels:
 - Remove all free liquids before placing used shop towels in an accumulation container.
 - Do *not* pour liquids into containers of used shop towels.

NOTE: Free liquids must either be re-used or designated to determine if management as a dangerous waste is required.

2. Accumulate shop towels in containers as follows:
 - Mark containers used to collect used shop towels with the words "Recycle Accumulation Area for Used Shop Towels."
 - Use separate containers to accumulate shop towels contaminated with hazardous substances that are not compatible with each other.
 - Keep containers used to accumulate shop towels contaminated with hazardous substances closed except when adding or removing shop towels.
 - Manage containers used to accumulate shop towels contaminated with flammable materials according to applicable procedures and post a legible "No Smoking" sign in the accumulation area.
3. Do *not* accumulate used shop towels for more than 180 days before they are sent for cleaning.
4. Contact the CCRC Point-of-Contact to arrange for the pickup of used shop towels.

5.89 Discharging Wastewaters to the Columbia River

[Basis: HNF-RD-15332, Section 2.89]

Actionee	Step	Action
Responsible Manager	1.	Comply with conditions of <i>National Pollutant Discharge Elimination System (NPDES) Permit No. WA-002591-7</i> that authorizes discharges from outfalls 001, 003, and 004 to the Columbia River.
	2.	Comply with the provisions of the <i>NPDES Storm Water Multi-Sector Permit No. WAR05A57(0)</i> , which authorizes storm water discharges to the Columbia River via outfall 004 (also known as the 1908-K outfall).

Environmental Protection Processes

Actionee	Step	Action
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NOTE: See Figure 6, Liquid Effluent Discharge, on the EP website.

3. If the discharge includes radionuclides, at the point of discharge and prior to dilution, or radioactive material at annual average concentrations greater than the *derived concentration guide* values in liquids given in DOE Order 5400.5, Chapter III, implement the best available technology (BAT) selected (using the DOE Order 5400.5 BAT selection process) to treat the wastewater stream before discharge.
 4. Implement the ALARA process for all liquid discharges that contain radionuclides.
 5. Do *not* discharge liquid process waste streams containing radioactive material in the form of settleable solids to natural waterways if the concentration of radioactive material in the solids present in the waste stream exceeds 5 pCi (0.2 Bq) per gram above background level, of settleable solids for alpha-emitting radionuclides, or 50 pCi (2 Bq) per gram above background level, of settleable solids for betagamma-emitting radionuclides.
 6. Maintain project- and operations-specific documentation necessary to show compliance with NPDES discharge requirements and applicable permit terms and conditions according to the instructions in Section 7.0, Records.
- | | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EP Program Services Manager | 7. Maintain company-wide, and sitewide documentation necessary to show compliance with NPDES discharge requirements and applicable permit terms and conditions according to the instructions in Section 7.0. |
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5.90 Discharging Wastewaters to the Land Surface, Including Injection Wells

[Basis: HNF-RD-15332, Section 2.90]

Actionee	Step	Action
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NOTE: This section does not apply to the discharge of purgewater. See Section 5.59, Generating Investigation Derived Waste Within a Waste Site or Suspected Waste Site, or Section 5.60, Generating Investigation Derived Waste Outside a Waste Site.

NOTE: See Figure 6, Liquid Effluent Discharge, on the EP website.

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|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Responsible Manager | 1. Do <i>not</i> discharge liquid waste streams with radionuclides to the soil column (i.e., trenches, cribs, ponds, and drain fields). |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------|

Environmental Protection Processes

Actionee Step

Action

NOTE: Existing waste streams that contain process-derived radionuclides, and that implemented a best available technology (BAT) selection process (DOE Order 5400.5), may be continued in accordance with established plans until the discharge is discontinued.

2. To prevent the further spread of radionuclides previously deposited, do not discharge liquids, even though uncontaminated, into inactive radionuclide-contaminated release areas.
3. Manage wastewater discharges to the land surface in accordance with the State Waste Discharge Permit Program or the Underground Injection Control (UIC) Program.
 - a. Comply with applicable restrictions contained in individual state waste discharge permits and DOE/RL-97-67, Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 4508, ST 4509, and ST 4510.

NOTE: Only those wastewater discharges identified in the DOE/RL-97-67, Section 10, are exempt from the State Waste Discharge Permit Program.

- b. Ensure existing Class V *injection wells* are registered in accordance with WAC 173-218, *Underground Injection Control Program*.
 1. Discharge *only* the following to Class V injection wells:
 - Uncontaminated storm water.
 - Heat pump return water.
 - Aquifer storage and recovery water.
 - Water undergoing remediation via pump-and-treat processed at a leaking underground storage tank site.
 - Other fluids deemed appropriate by the Washington State Department of Ecology (Ecology).

NOTE: Discharges "deemed appropriate by Ecology" are determined largely based on WAC 173-200, *Ground Water Quality Standards for Ground Waters of the State of Washington*.

A list of existing wells can be found in DOE/RL-88-11, *Registration of Hanford Site Class V Underground Injection Wells*.

Environmental Protection Processes

Actionee	Step	Action
	4.	Maintain project- and operations-specific documentation necessary to show compliance with State Waste Discharge Program requirements and applicable permit terms and conditions, and with UIC Program requirements according to the instructions in <u>Section 7.0, Records</u> .
EP Program Services Manager	5.	Maintain company-wide and sitewide documentation necessary to show compliance with State Waste Discharge Program requirements and applicable permit terms and conditions, and with UIC Program requirements according to the instructions in Section 7.0.

5.91 Discharging Wastewaters to a Sanitary Sewer System

[Basis: HNF-RD-15332, Section 2.91]

Actionee	Step	Action
Responsible Manager	1.	Implement the DOE Order 5400.5, Chapter II, best available technology (BAT) selection process if liquid waste discharges into sanitary sewerage contain radionuclides at concentrations that, when averaged monthly, would otherwise be greater than five times the <i>derived concentration guide</i> (DCG) values for liquids given in DOE Order 5400.5, Chapter III, at the point of discharge.

NOTE: That is, implement the BAT selection process if the total of the fractions of the average concentrations for each radionuclide to its respective DCG value would otherwise exceed 5.

- a. Coordinate discharges to public sewers with the operators of the publicly owned treatment works (POTWs).

NOTE: See Figure 6, Liquid Effluent Discharge, on the EP website.

- b. Control concentrations so that long-term buildup of radionuclides in solids will not present a handling and disposal problem at sewage disposal plants.
2. Discharge liquid effluents to the Richland Sewage System *only* through discharges that have been approved by the City of Richland. Comply with applicable city ordinances.
3. Do *not* discharge any strong bases, acids, or chlorinated organic solvents into any onsite sewage system for any purpose.
4. Maintain project- and operations-specific documentation necessary to show compliance with sanitary sewer system requirements and applicable permit terms and conditions according to the instructions in Section 7.0, Records.

Environmental Protection Processes

Actionee	Step	Action
EP Program Services	5.	Maintain company-wide and sitewide documentation necessary to show compliance with sanitary sewer system requirements and applicable permit terms and conditions according to the instructions in Section 7.0.

6.0 FORMS

Centralized Consolidation/Recycling Center form

Certification of Spent Antifreeze form

Environmental-Activity Screening form, A-6003-727

Environmental Site Information form

Hanford Addendum to Notification of Intent (NOI) form, A-6002-551

Individual Notification of Intent (NOI) form (Contact Asbestos Program Manager POC)

Land Disposal Restriction Notification form (Contact CRCC POC)

National Environmental Policy Act Screening form, A-6001-497

Part A Permit Application, Form 2

Part A Permit Application, Form 3

Permit Modification Request Form

Radiological Release Certification form

Solid Waste Disposal Receipt - Bulk and Containerized Waste forms, A-6002-730 (Bulk Waste) and BC-6002-115 (Containerized Waste)

Underground Injection Control (UIC) Program Registration form (Washington State Department of Ecology Form # ECU 040-47)

UST Notification Form, BC-6002-645

Waste Shipment Record form, BC-6002-567 (Asbestos Waste) and BC-6002-645 (Nonfriable Asbestos Waste)

7.0 RECORD IDENTIFICATION

{Basis: HNF-RD-15332, Sections 2.117, 2.118, 2.119, 2.120}

Maintain records listed in Table 6:

- According to the instructions in HNF-RD-210, Records Management Program, for at least 5 years.
- In a readily retrievable format.
- Cleared, in accordance with HNF-PRO-184, Information Clearance, before such records are released to the regulators or other offsite requestors.

NOTE: Table 6 summarizes both company-wide and sitewide records produced in support of the Environmental Compliance Program (ECP), managed by EP, and project/facility-specific records.

Table 6
Records Capture Table

Name of Document	Submittal	Retention
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Project Hanford Management System

Environmental Protection Processes

HNF-PRO-15333, Rev. 0

Published: August 8, 2003

Page 202 of 231

	Responsibility	Responsibility
Air - Criteria/Toxic Air Emissions		
Company-Wide/Sitewide		
<i>Annual Air Emissions Reports.</i>	EP Monitoring & Reporting Manager	EP Monitoring & Reporting Manager
Project/Facility-Specific		
<ul style="list-style-type: none"> <i>Annual Air Emissions Report</i> input. Notice of Construction (NOC) applications and Orders of Approval. 	Responsible Manager	Responsible Manager
Air - Radioactive Air Emissions		
Company-Wide/Sitewide		
<ul style="list-style-type: none"> <i>Radioactive Air Emissions Report for the Hanford Site</i> (NESHAPs Annual Report). <i>Annual Hanford Site Environmental Report.</i> 	EP Monitoring & Reporting Manager	EP Monitoring & Reporting Manager
Project/Facility-Specific		
<u>Calibration Records - NESHAPs Stacks:</u> Records and procedures for stack instrumentation, functional checks/periodic calibrations (i.e., vacuum gauges, rotameters, and gas meters).	Responsible Manager	Responsible Manager
<u>Emissions Monitoring Data - NESHAPs Stacks:</u> <ul style="list-style-type: none"> Stack flow and sampling data, including flow rate calculations (e.g., vent and balance). <i>Radioactive Air Emissions Report for the Hanford Site</i> (NESHAP Annual Report) input. Documentation verifying compliance with quality assurance requirements of 40 CFR 61, Subpart H, Appendix A, Method 114 (e.g., <i>Quality Assurance Program for Radionuclide Airborne Emissions Monitoring</i>). Records documenting periods of malfunction or in-operation (i.e., monitoring system downtime). 	Responsible Manager	Responsible Manager
<u>Emissions Monitoring Data - All Sources of Radionuclide Emission:</u> <ul style="list-style-type: none"> Stack flow and sampling data including flow rate calculations (e.g., vent and balance). <i>Radioactive Air Emissions Report for the Hanford Site</i> (NESHAPs Annual Report) input. NESHAPs assessments. 	Responsible Manager	Responsible Manager
<u>Nonpoint Sources and Fugitive Emissions - All Sources of Radionuclide Emission:</u>	Responsible Manager	Responsible Manager

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Environmental Protection Processes

<ul style="list-style-type: none"> Radioactive air emissions report for the Hanford Site (NESHAPs Annual Report) input. <i>Annual Hanford Site Environmental Report</i> input. 		
<u>Passively Ventilated Point Sources - All Sources of Radionuclide Emission (as identified in the Hanford Site Air Operating Permit [AOP]):</u> Per the requirements of the Hanford Site AOP compliance plan and schedule.	Responsible Manager	Responsible Manager
<u>Notices of Construction:</u> NOC applications and Orders of Approval (e.g., letters) for EPA/WDOH, including any additional approval conditions.	Responsible Manager	Responsible Manager
<u>Best Available Radionuclide Control Technology (BARCT) and As Low as Reasonably Achievable Control Technology (ALARACT) Demonstrations (if applicable):</u> Records of BARCT and/or ALARACT demonstrations.	Responsible Manager	Responsible Manager
<u>Drawings and Blueprints (for major stacks):</u> Configuration drawings and/or process flow diagrams of radioactive air emission unit effluent control and continuous emissions measurement systems.	Responsible Manager	Responsible Manager
<u>Line Loss Studies (if performed):</u> Estimated and documented line losses and sample collection efficiency studies completed at the direction of WDOH.	Responsible Manager	Responsible Manager
<u>Calibration and Maintenance Records and Procedures:</u> Continuous emissions monitoring system calibration and maintenance records and original strip chart recordings, or equivalent (refer to definition of maintenance records for further examples). Maintenance records and procedures for nondesignated stack instrumentation functional checks/periodic calibrations (i.e., vacuum gauges, rotameters, and gas meters).	Responsible Manager	Responsible Manager
NOTE: Maintenance records include those associated with radioactive air emission unit required abatement control technology equipment, as identified in the Hanford Site AOP, and emissions measurement systems and instrumentation records (e.g., continuous air monitors, probes, pumps, rotameters, flow regulators, pressure gauges, totalizers, gas meters, and flow switches).		
<u>Efficiency Tests of High-Efficiency Particulate Air (HEPA) Filters:</u> Test procedures and results of HEPA filter/aerosol tests.	Responsible Manager	Responsible Manager
<u>Reports:</u> Reports for closure of a radioactive source 10-day notification follow-up reports.	Responsible Manager	Responsible Manager
<u>Operation Log:</u> Specific regulatory order approval	Responsible Manager	Responsible Manager

Environmental Protection Processes

conditions for categorically-approved units.		
<u>Quality Assurance Program</u> : Documentation verifying compliance with quality assurance requirements of 40 CFR 61, Subpart H, Appendix A, Method 114 (e.g., <i>Quality Assurance Program for Radionuclide Airborne Emissions Monitoring</i>).	Responsible Manager	Responsible Manager
<u>Trending Data</u> : Trending data from <i>primary indication device(s)</i> for each stack or vent associated with radioactive emissions.	Responsible Manager	Responsible Manager
Air - Radioactive Air Emissions Sampling		
Company-Wide/Sitewide		
Regulatory-driven environmental reports containing data that were generated in accordance with this procedure.	EP Monitoring & Reporting Manager	EP Monitoring & Reporting Manager
Project/Facility-Specific		
Limited inspection and comprehensive inspection records (including discrepancy records).	Responsible Manager	Responsible Manager
Chain-of-custody records (not contained in Automated Bar Coding of Air Samples at Hanford [ABCASH] 2).	Responsible Manager	Receiving Laboratory
Records in ABCASH 2.	Responsible Manager	ABCASH 2 Administrator
Asbestos		
Company-Wide/Sitewide		
<i>Annual Asbestos Notification of Intent</i> (NOI).	EP Program Services Manager	EP Program Services Manager
Project/Facility-Specific		
Individual Asbestos NOIs.	Responsible Manager	Responsible Manager
Asbestos Shipment Record for each asbestos waste shipment, according to the requirements of 40 CFR 61.150(d)(4-5).	Responsible Manager	Responsible Manager
Drinking Water		
Permits and documents to show compliance with drinking water requirements and applicable permit terms and conditions.	Water Purveyor	Water Purveyor
Effluent Monitoring		
Company-Wide/Sitewide		
Environmental monitoring data.	EP Monitoring &	EP Monitoring &

Project Hanford Management System

Environmental Protection Processes

HNF-PRO-15333, Rev. 0

Published: August 8, 2003

Page 205 of 231

	Reporting Manager	Reporting Manager
Emergency Planning and Community Right-To-Know Act (EPCRA) Reports		
Company-Wide/Sitewide		
<i>Tier Two Report.</i>	EP Monitoring & Reporting Manager	EP Monitoring & Reporting Manager
<i>TRI Report.</i>	EP Monitoring & Reporting Manager	EP Monitoring & Reporting Manager
Project/Facility-Specific		
Facility input to EPCRA reports.	Responsible Manager	Responsible Manager
Waste Information Data System (WIDS) Sites		
Company-Wide/Sitewide		
WIDS Database.	WIDS Administrator	WIDS Administrator
<i>Annual Waste Management Units Report.</i>	WIDS Administrator	WIDS Administrator
Project/Facility-Specific		
WIDS Inspection Plans.	Responsible Manager	Responsible Manager
Survey and inspection reports.	Survey performer	Responsible Manager
Documentation on suspect WIDS sites; isolation; condition, status, and characteristics; approval for site use; maintenance activities; compliance plans, or administrative control plans.	Responsible Manager	Responsible Manager
National Environmental Policy Act (NEPA)/State Environmental Policy Act (SEPA) Hanford Cultural Resources Compliance Review (ECRC)/Ecological Compliance Resources Review (ECR)		
Company-Wide/Sitewide		
ECP-generated NEPA documentation.	EP Program Services Manager	EP Program Services Manager
Project/Facility-Specific		
<i>NEPA Screening form, Automated Job Hazard Analysis (AJHA) NEPA Identification form, and final NEPA/SEPA documentation.</i>	Responsible Manager	Responsible Manager
HCRC reviews/reports.	Responsible Manager	Responsible Manager
ECR reviews/reports.	Responsible Manager	Responsible Manager
Polychlorinated Biphenyls (PCBs)		
Company-Wide/Sitewide		
<i>PCB Annual Document Log.</i>	EP Monitoring &	Record Management

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Environmental Protection Processes

	Reporting Manager	Information System (RMIS)/Records Holding Area
Project/Facility-Specific		
Records required by 40 CFR 761.180; 40 CFR 761.30, .35, .61, .65, .75, .80, and .125; and Subpart K.	Manager responsible for generating PCBs	Manager responsible for generating PCBs
Certificates of Disposal.	Manager responsible* for generating PCBs	Manager responsible for generating PCBs
Records documenting that equipment has been decontaminated before being placed back into service.	Responsible Manager	Responsible Manager
Regulated Underground Storage Tanks (USTs)		
Company-Wide/Sitewide		
Records as specified in WAC 173-360-210, WAC 173-360-330 through WAC 173-360-355, and WAC 173-360-398 (ECP-related).	EP Program Services Manager	EP Program Services Manager
Project/Facility-Specific		
Records as specified in WAC 173-360-210, WAC 173-360-330 through WAC 173-360-355, and WAC 173-360-398 (project-specific).	Responsible Manager	Responsible Manager
<u>Corrosion Protection System Inspection Records:</u> The results of the last three inspections required in WAC 173-360-320(3); the results of testing from the last two inspections required in WAC 173-360-320(2).	Responsible Manager	Responsible Manager
Documentation of operation of corrosion protection equipment (WAC 173-360-320).	Responsible Manager	Responsible Manager
Documentation of UST system repairs [WAC 173-360-325(7)].	Responsible Manager	Responsible Manager
Recent compliance with release detection requirements (WAC 173-360-355).	Responsible Manager	Responsible Manager
Corrective action records in accordance with WAC 173-340.	Responsible Manager	Responsible Manager
Written performance claims pertaining to any release detection system used.	Responsible Manager	Responsible Manager
Documentation of UST system repairs for the remaining operating life of the UST site that demonstrates compliance with the requirements of WAC 173-360-325(7).	Responsible Manager	Responsible Manager
The results of any sampling, testing, or monitoring, except the results of tank tightness testing conducted	Responsible Manager	Responsible Manager

Environmental Protection Processes

in accordance with WAC 173-360-345.		
Written documentation of calibration, maintenance, and repair of release detection equipment permanently located on-site.	Responsible Manager	Responsible Manager
Records documenting the results of UST site assessments per WAC 173-360-398.	Responsible Manager	Responsible Manager
Refrigerants (Ozone Depleting Substances [ODS])		
Project/Facility-Specific		
Technician certifications for ODS.	Trained Individual	Trained Individual
Service records indicating that the refrigerant was properly, recovered, recycled, or containerized for proper disposal.	Responsible Manager	Responsible Manager
Servicing technician and certification type performing any refrigeration maintenance, service, repair, or recovery for disposal on any service record generated.	Responsible Manager	Responsible Manager
Service, preventative maintenance, or repair records, including associated dates the activities were performed; appliance identification, location, refrigerant type, and quantity.	Responsible Manager	Responsible Manager
Service records that demonstrate refrigerant purchase (including type, quantity, and technician certification), and/or usage (including type, quantity recovered, recycled, or added, and associated dates).	Responsible Manager	Responsible Manager
Technician identification, verification statement, and signature of refrigerant evacuation to the required level upon the planned inactivation/disposal of an appliance.	Responsible Manager	Responsible Manager
For appliances containing greater than or equal to 50 pounds normal charge indicating any of the following: <ul style="list-style-type: none"> - Calculations (and supporting information) for leak rates. - Facility identification, contact person (address and phone number), a general description of refrigeration appliance relevant to refrigerant purging and subsequent destruction, a description of methods used to determine the quantity of refrigerant sent for destruction, the frequency of monitoring and date-recording, a description of the control device, and the destruction efficiency (maintain this information onsite the first time an owner or operator excludes purged refrigerants [that are destroyed] from leak rate calculations). 	Responsible Manager	Responsible Manager

Environmental Protection Processes

<ul style="list-style-type: none"> - Calculations (and supporting information) for full charge. - Initial and follow-up verification testing and supporting information (within the required 30-day time periods, and including supporting parameters that demonstrate leak repair to less than maximum allowable rates). - Records that demonstrate leak repair completion including associated dates an activity was performed. - All service preventative maintenance, repair, or disposition records. - Records of usage (including refrigerant type, quantity purchased, quantity recovered, recycled, or added, and associated dates). - Appliance disposition (system moth-balling, system upgrades, system shut-down, disposal) including dates, status of refrigerant, and supporting parameters. - Service technician identification and type of certification (I, II, III, or universal). - Refrigerant evacuation levels (including equipment identification and manufacture date of recovery/recycling). 		
Spill Prevention Control and Counter-Measures (SPCC)		
Project/Facility-Specific		
SPCC Plan (based on oil, tank, or PCB requirements).	Responsible Manager	Responsible Manager
Spent Antifreeze		
Company-Wide/Sitewide		
Records as proof of spent antifreeze reclamation/recycling.	CCRC Manager	CCRC Manager
Spills/Releases		
Company-Wide/Sitewide		
Written follow-on reports: multi-project.	EP Program Services Manager	EP Program Services Manager
Documentation related to emergency termination/recovery planning/restart: multi-project.	EP Program Services Manager	EP Program Services Manager
Project/Facility-Specific		
Written follow-on reports: project-specific.	Responsible Manager	Responsible Manager
Documentation related to emergency termination/recovery planning/restart: project-	Responsible Manager	Responsible Manager

Environmental Protection Processes

specific.		
Documentation concerning dangerous waste spill recovery/spill clean-up: project-specific.	Responsible Manager	Responsible Manager
Used Oil		
Project/Facility-Specific		
Records associated with the offsite management of used oil.	Responsible Manager	Responsible Manager
Records of used oil delivered directly to a burner in accordance with 40 CFR 279.24.	Responsible Manager	Responsible Manager
Waste - Dangerous Waste		
Company-Wide/Sitewide		
General Information File of the Hanford Facility <i>Operating Record</i> .	EP Program Services Manager	EP Program Services Manager
Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and/or Disposal (TSD) Unit-Specific File of the Hanford Facility <i>Operating Record</i> for clean closed units.	EP Program Services Manager	EP Program Services Manager
<i>Facility Permit Modification Requests and General Information Permit Application</i> , including facility-wide background information used to develop the <i>Hanford Facility RCRA Permit</i> .	EP Program Services Manager	EP Program Services Manager
Project/Facility-Specific		
Records required by WAC 173-303-210 for generator activities.	Responsible Manager	Responsible Manager
Waste designation records (e.g., testing results, documented process knowledge regarding the process that generated the dangerous waste and constituents in the waste matrix, and waste inventory sheets).	Responsible Manager	Responsible Manager Copy to Responsible Manager of RCRA TSD Unit storing mixed waste for long-term storage
Documentation of the basis for any conclusion drawn regarding the waste as part of the radiological characterization records for the waste.	Responsible Manager	Responsible Manager
Declaration that a waste is dangerous using knowledge.	Responsible Manager	Responsible Manager
Generator waste analysis plan.	Responsible Manager	Responsible Manager
Satellite Accumulation Area closure records.	Responsible Manager	Responsible Manager

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Environmental Protection Processes

90-day accumulation area closure records.	Responsible Manager	Responsible Manager
RCRA TSD Unit-Specific File of the Hanford Facility <i>Operating Record</i> (except clean closed units).	Responsible Manager	Responsible Manager
Records of the annual inspection of areas where ignitable (D001) or reactive (D003) waste has been managed, in accordance with WAC 173-303-395(1)(d).	Responsible Manager	Responsible Manager
Records of dangerous waste analysis and treatment in accordance with 40 CFR 268.7, 40 CFR 268.9(d).	Responsible Manager	Responsible Manager
Records that demonstrate movement to subsequent waste management units.	Responsible Manager	Responsible Manager
<i>Unit-Specific Permit Modification Requests</i> and permit applications, including background information used to develop <i>Hanford Facility RCRA Permit</i> chapters.	Responsible Manager	Responsible Manager
Wastewater		
Company-Wide/Sitewide		
Company-wide, and sitewide documentation necessary to show compliance with: <ul style="list-style-type: none"> • <i>National Pollution Discharge Elimination System (NPDES)</i> requirements. • <i>State Waste Discharge Program (SWDP)</i>. • <i>Underground Injection Control (UIC) Program</i>. • Sanitary Sewer System requirements. • Purgewater discharge requirements. • Applicable permit terms and conditions. 	EP Program Services Manager	EP Program Services Manager
Project/Facility-Specific		
Project/facility-specific documentation necessary to show compliance with: <ul style="list-style-type: none"> • NPDES requirements. • SWDP. • UIC Program. • Sanitary Sewer System requirements. • Purgewater discharge requirements. • Applicable permit terms and conditions. 	Responsible Manager	Responsible Manager

8.0 REFERENCES

8.1 Source References

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29 CFR 1926, *Safety and health regulations for construction*

40 CFR 60, *Standards of Performance for New Stationary Sources*

40 CFR 61, *National Emissions Standards for Hazardous Air Pollutants*

40 CFR 63, *National Emission Standards for Hazardous Air Pollutants*

40 CFR 82, *Protection of the Stratospheric Ozone*

40 CFR 112, *Oil Pollution Prevention*

40 CFR 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System*

40 CFR 146, *Underground Injection Control Program: Criteria and Standards*

40 CFR 152, *Pesticide Registration and Classification Procedures*

40 CFR 260, *Hazardous Waste Management System - General*

40 CFR 264, *Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities*

40 CFR 265, *Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities*

40 CFR 268, *Land Disposal Restrictions*

40 CFR 279, *Standards for the Management of Used Oil*

40 CFR 280, *Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)*

40 CFR 300, *National Oil and Hazardous Substances Pollution Contingency Plan*

40 CFR 302, *Superfund, Emergency Planning and Community Right-To-Know Act - Designation, Reportable Quantities, and Notification*

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40 CFR 372, *Toxic Chemical Release Reporting: Community Right-To-Know*

40 CFR 761, *Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions*

40 CFR 763, *Asbestos*

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49 CFR, Subchapter C--Hazardous Materials Regulations, Sections 171-180

50 CFR 10, *General provisions*

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44 FR 31517

62 FR 62079, *Joint NRC/EPA Guidance on Testing Requirements for Mixed Radioactive and Hazardous Waste*

7 USC 136, *Federal Insecticide, Fungicide, and Rodenticide Act of 1974, as amended*

Environmental Protection Processes

15 USC 2601, *Toxic Substances Control Act*

29 USC 651, *Occupational Safety and Health*

33 USC 1251, *Clean Water Act*

42 USC, 2011, *Atomic Energy Act*

42 USC 4321, *National Environmental Policy Act of 1969*

42 USC 6901, *Resource Conservation and Recovery Act*, as amended (also known as the *Federal Solid Waste Disposal Act*)

42 USC 7401, *Clean Air Act*

42 USC 9601, *Comprehensive Environmental Response, Compensation, and Liability Act*. (CERCLA)

42 USC 11021-11023, *Emergency Planning and Community Right-To-Know Act of 1986, Subtitle B-- Reporting Requirements*

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ANSI N42.18, *Specification and Performance of On-Site Instrumentation for Continuously Monitoring Radioactivity in Effluents*

ANSI/ASME AG-1, *Code of Nuclear Air and Gas Treatment*

ANSI/ASME N509, *Nuclear Power Plant Air-Cleaning Units and Components*

ANSI/ASME N510, *Testing of Nuclear Air Cleaning Systems*

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Environmental Protection Processes

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WAC 173-200, *Water Quality Standards for Ground Waters of the State of Washington*
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Environmental Protection Processes

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WAC 173-304, *Minimum Functional Standards for Solid Waste Handling*

WAC 173-310, *Litter Receptacles*

WAC 173-340, *Model Toxics Control Act -- Cleanup*

WAC 173-360, *Underground Storage Tank Regulations*

WAC 173-400, *General Regulations for Air Pollution Sources*

WAC 173-425, *Open Burning*

WAC 173-460, *Controls for New Sources of Toxic Air Pollutants*

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Project Hanford Management System

Environmental Protection Processes

HNF-PRO-15333, Rev. 0

Published: August 8, 2003

Page 216 of 231

APPENDIX A

Glossary

Abatement Technology. Any mechanism, process, or method that has the potential to reduce public exposure to radioactive air emissions. Abatement control features include automatic mechanisms and administrative controls used in the operation and control of abatement technology from entry of radionuclides into the ventilated vapor space to release to the environment. Abatement technology for specific emission units is identified as follows in the *Hanford Site Air Operating Permit*:

- Primary controls (e.g., *High Energy Particulate Air filters*, carbon filters),
- Other equipment necessary to ensure the integrity, or support operation of, the primary controls,
- Exhaust fans, *and*
- Ventilation units identified as backup, standby, or intermittent units.

Activity Category. A group of activities related to either a phase of a facility, a process lifecycle, or a type of service.

Annual or Annually (Air). The term "annual" or "annually" regarding testing or calibration of required filters or indication devices is defined as no later than within the same month of the following year.

Annual Possession Quantity. The sum of the quantity of a radionuclide on hand at the beginning of the calendar year and the quantity of that radionuclide received or produced during the calendar year.

Antifreeze. Ethylene glycol-based coolant used as a heat exchange medium in motor vehicle radiators, motorized equipment, or in other industrial processes.

Approved Recovery Equipment. Equipment that is manufactured by an EPA-approved testing organization. Recovery equipment removes *refrigerant* from an appliance via a control valve (either vapor passage or liquid metering device), oil separator, evaporator, compressor, condenser, and a container for holding the recovered refrigerant.

Approved Recycling Equipment. Approved recycling equipment is equipment that is manufactured by a EPA-approved testing organization. Recycling equipment removes contaminants such as moisture, acid, non-condensable gases, particulate, and high-boiling residues.

Automated Job Hazard Analysis (AJHA) System. A maintenance system for electronically developing work packages and identifying potential hazards associated with applicable work.

Best Available Radionuclide Control Technology (BARCT). Technology resulting in a radionuclide emission limitation based on the maximum degree of reduction for radionuclides from any proposed newly constructed or significantly modified emission units the licensing authority determines is achievable on a case-by-case basis. A BARCT compliance demonstration must consider energy, environmental, economic impacts, and other costs through examination of production processes; and available methods, systems, and techniques for the control of radionuclide emissions. A BARCT compliance demonstration is the conclusion of an evaluative process that results in the selection of the most effective control technology from all known feasible alternatives.

Environmental Protection Processes

Categorical Exclusion or Categorically Excluded (CX). A category of actions that do not individually or cumulatively have a significant effect on the human environment, and for which neither an environmental assessment nor an environmental impact statement is required.

Category 1 (Major) Air Emission Unit. An emission unit with a potential offsite total effective dose equivalent (TEDE) of >0.1 mrem per year. The theoretical annual emissions of radionuclides (used to calculate the potential offsite dose) are those expected from routine operations at maximum expected capacity combined with those from routinely expected process upsets and conditions resulting from *startup*, *shutdown*, or *maintenance* activities. The theoretical annual emissions are to include the further assumption that no *pollution control equipment* is in place. The TEDE estimate (potential offsite dose) must be calculated using an EPA-approved model. The results either must be approved by the Hanford Environmental Dose Overview Panel (HEDOP) or be based on unit dose tables previously approved by the HEDOP.

Category 2 (Minor) Air Emission Unit. An emission unit with a potential offsite *total effective dose equivalent* (TEDE) of ≤ 0.1 mrem per year. The theoretical annual emissions of radionuclides (used to calculate the potential offsite dose) are those expected from routine operations at maximum expected capacity combined with those from routinely expected process upsets and conditions resulting from *startup*, *shutdown*, or *maintenance* activities. The theoretical annual emissions are to include the further assumption that no *pollution control equipment* is in place. The TEDE estimate (potential offsite dose) must be calculated using an EPA-approved model. The results either must be approved by the Hanford Environmental Dose Overview Panel (HEDOP) or be based on unit dose tables previously approved by the HEDOP.

Cognizant Environmental Compliance Officer (ECO). A person who facilitates the maintenance of environmental compliance for a project/facility as assigned by the Environmental Protection Director, in consultation with the Responsible Manager for the project/facility. A description of the responsibilities of an ECO is found on the [Human Resources website](#). A current listing of the ECOs is found on the [Environmental Protection website](#).

Commercial. Commercial refrigeration includes appliances utilized in the retail food and cold storage warehouse sectors. Retail food includes the refrigeration equipment found in supermarkets, convenience stores, restaurants, and other food service establishments. Cold storage includes the equipment used to store meat, produce, dairy products, and other perishable goods. All of the equipment contains large *refrigerant* charges, typically over 75 pounds.

Committed Effective Dose Equivalent (CEDE). The sum of the products of absorbed dose from internally deposited radionuclides and appropriate factors to account for differences in biological effectiveness due to the quantity of radiation and its distribution in the body of reference man over a 50-year period.

Concealment or Conceals. Concealment means any action taken to reduce the observed or measured concentrations of a pollutant in a gaseous effluent while, in fact, not reducing the total amount of pollutant discharged.

Condition. Condition means any as-found state, whether or not resulting from an event, that may have adverse safety, health, quality assurance, security, operational or environmental implications. A condition is usually programmatic in nature (e.g., an error in analysis or calculation; an anomaly associated with design or performance; or an item indicating a weakness in the management process).

Environmental Protection Processes

Decommissioning. Actions taken to reduce or eliminate the potential public health and safety impacts of a building, structure, or plant that has permanently ceased operations, including, but not limited to, actions such as decontamination, demolition, and disposition.

De minimis. *Releases of refrigerant* shall be considered de minimis if they occur when: (1) the required practices set forth in 40 CFR 82.156 are observed and recovery or recycling machines that meet the requirements set forth in 40 CFR 82.158 are used; or (2) the requirements set forth in 40 CFR 82, subpart B, are observed.

Derived Concentration Guide (DCG). The concentration of a radionuclide in air or water that, under conditions of continuous exposure for one year by one exposure mode (i.e., ingestion of water, submersion in air, or inhalation), would result in an effective dose equivalent of 100 mrem or 0.1 rem (1 mSv). DCGs do not consider decay products when the parent radionuclide is the cause of the exposure (DCG values are presented in DOE Order 5400.5, Chapter III) (1 rem = 0.01 sievert).

Discovered. For the purpose of compliance with radionuclide air emission requirements, "discovered" means an evaluation of pertinent information and qualitative determination that a potential or actual release of radionuclides occurred to the air.

Discovery. The "discovery" date and time is when staff becomes aware of an event or *condition*. Staff are those personnel assigned to a facility and cognizant of the area in which the event or condition is identified. This is not the time the Responsible Manager or designee (e.g., facility manager, shift manager) becomes aware of the event or condition. The Responsible Manager or designee is responsible for training staff to report all events or conditions in a timely fashion to their manager so that notification considerations can be pursued.

Ecological Compliance Resources (ECR) Review. An ecological review performed by Pacific Northwest National Laboratory.

Emissions Measurement. Extracting a representative sample of the effluent stream, to be followed by an analysis or inspection of the sample to provide a report and record of the pertinent characteristics of the effluent stream. For example, vacuum extraction of stack effluent using a sample probe, followed by laboratory analysis of the extracted sample.

Emissions Monitoring. Measuring certain constituents or parameters in an effluent stream to obtain a representative, *timely* indication of the amount emitted over a specified time. For example, a continuous air monitor providing an alarm in case of excess concentration in the effluent.

Emission Unit. Any single location that emits or has the *potential to emit* airborne pollutants. This could be a *point source* (e.g., stack or vent), nonpoint source (e.g., diffuse or area), or source of *fugitive emissions* (e.g., minor localized emissions not amenable to measurement by standard methods).

Environment. Any air, land, water, or groundwater (WAC 173-303-040).

Environmental Assessment (EA). A concise public *National Environmental Policy Act* (NEPA) document that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a *finding of no significant impact*, aid in a federal agency's

Environmental Protection Processes

compliance with NEPA when no environmental impact statement is necessary, or facilitate preparation of a statement when one is necessary.

Environmental Impact Statement (EIS). A detailed written statement as required for any major federal action that may significantly affect the quality of the human environment.

Environmental Portal. A service established to provide the expedited distribution of environmental correspondence and other information to environmental contacts throughout FH. The distribution list of information recipients is comprised of project, facility, and functional representatives.

Event. Something significant and real-time that happens (e.g., pipe brake, valve failure, loss of power, environmental *spill*, earthquake, tornado, flood).

Excess Emissions. Emissions of an air pollutant in excess of any applicable emissions standard (e.g., reasonably available control technology – commonly called “RACT”).

Finding of No Significant Impact (FONSI). A summary decision from a *National Environmental Policy Act* Environmental Assessment indicating that a proposed action has a finding of no significant impact.

Follow-Up Verification Test. For the purposes of 40 CFR 82.156(i), those tests that involve checking the repairs within 30 days of the appliance's returning to normal operating characteristics and conditions. Follow-up verification tests for appliances from which the refrigerant charge has been evacuated means a test conducted after the appliance or portion of the appliance has resumed operation at normal operating characteristics and conditions of temperature and pressure, except in cases where sound professional judgment dictates that these tests will be more meaningful if performed prior to the return to normal operating characteristics and conditions. A follow-up verification test with respect to repairs conducted without evacuation of the refrigerant charge means a re-verification test conducted after the initial verification test and usually within 30 days of normal operating conditions. Where an appliance is not evacuated, it is only necessary to conclude any required changes in pressure, temperature, or other conditions to return the appliance to normal operating characteristics and conditions.

Fugitive Emissions. Emissions that do not pass and that reasonably could not pass through a stack, chimney, vent, or other functionally equivalent opening.

General activity. A general activity is an activity that applies to a project or action whenever the category applies. General activities trigger more extensive actions or documentation performed by environmental personnel. These may include reviews to determine if the work is covered by existing:

- NEPA or *State Environmental Policy Act* (SEPA) documentation.
- Hanford Cultural Resources Compliance (HCRC) or Ecological Compliance Resources (ECR) approvals.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) documentation (if applicable).
- Permits, regulatory agreements/orders, and/or other environmental requirements and documentation.

Environmental Protection Processes

There are four general activities in the environmental protection process:

- Constructing or Modifying Facilities, Equipment, or Processes (Including Changes to Operating Processes) - General.
- Operating Facilities, Equipment, or Processes - General.
- Maintaining and Repairing Facilities, Equipment, or Processes - General.
- Discontinuing Use Of, Deactivating, Decontaminating, Dismantling, or Closing Facilities (Including Trailers), Equipment, or Processes - General.

Hanford Cultural Resource Compliance (HCRC) Review. A cultural and/or historical review performed by Pacific Northwest National Laboratory.

Hazardous Chemical. Any element, chemical compound, or mixture of elements and/or compounds that is a health hazard or a physical hazard, as defined in 29 CFR 1910.1200(c). The following substances are excluded from the definition:

- Foods, additives, drugs, or cosmetics regulated by the Food and Drug Administration.
- Substances present as a solid in any manufactured item, where exposure to the substance does not occur.
- Substances used for personal, family, or household purposes, or that are present in the same form and concentration as products packaged for distribution and use by the general public.
- Substances used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual.
- Substances used in routine agricultural operations or as a fertilizer held for sale.
- Waste managed under RCRA and/or WAC 173-303.

High Efficiency Particulate Air (HEPA) Filter. A HEPA filter, by definition, exhibits an installed decontamination factor of 2,000; that is, an efficiency of 99.95 percent for removal of polydispersed test aerosols having a median diameter of 0.7 micrometer. A HEPA or HEPA-equivalent filter has a minimum (installed) leakage rate efficiency of 99.95 percent for aerosol with a nominal median diameter of 0.7 micrometer. Procured HEPA filters remove at least 99.97 % of approved test aerosol particles with a nominal median diameter of 0.3 micron.

Immediately. To start without delay and continuously pursue until complete.

Inactive Miscellaneous Underground Storage Tank (IMUST). A past practice unit that has been identified in the Waste Identification Data System for cleanup in accordance with Section 7.0 of the *Hanford Federal Facility Agreement and Consent Order* (the Tri-Party Agreement or TPA) *Action Plan*.

Environmental Protection Processes

Indication Device. A radioactive air abatement and emissions measurement system indicator device. These include continuous air monitors, high efficiency particulate air (HEPA) filters, filter differential pressure instruments, HEPA filter housing sight glasses, and other parameters used to observe conditions related to control of airborne effluents.

Industrial – Refrigerant. Industrial process refrigeration includes complex customized appliances used in the chemical, pharmaceutical, petrochemical, and manufacturing industries. These appliances are directly linked to the industrial process. This sector also includes industrial ice machine, appliances used directly in the generation of electricity, and ice rinks. Where one appliance is used for both industrial process refrigeration and other applications, it is considered industrial process refrigeration equipment if 50 percent or more of its operating capacity is used for industrial process refrigeration.

Initial Verification Test. For the purposes of 40 CFR 82.156(i), those leak tests that are conducted as soon as practicable after the repair is completed. An initial verification test, with regard to the leak repairs that require the evacuation of the appliance or portion of the appliance, means a test conducted prior to the replacement of the full refrigerant charge and before the appliance or portion of the appliance has reached operations at normal operating characteristics and conditions of temperature and pressure. An initial verification test with regard to repairs conducted without the evacuation of the refrigerant charge means a test conducted as soon as practicable after the conclusion of the repair work.

Injection Wells. Injection wells are man-made or improved holes in the ground, whose depth is greater than the largest surface dimension. Injection wells are used to release or dispose of fluids underground. Examples include sumps, drywells, and drainfields. Class V injection wells that are allowed in Washington are those that are *not* used to inject industrial waste fluids into or above an underground source of drinking water (USDW). In Washington, all sources of ground water are considered a USDW.

Investigation Derived Waste (IDW). Any waste generated as a result of conducting a *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)* or *Resource Conservation and Recovery Act (RCRA)* past-practice investigation, treatability study, or well construction, maintenance, or abandonment activity. IDW may include but is not limited to: drilling mud; cuttings from test pit and well installation; materials from well maintenance, remediation, and abandonment; purge water, soil, and other materials from collection of samples; residues (e.g., ash, spent carbon) from testing of treatment technologies; contaminated personal protective equipment; and solutions (aqueous or otherwise) used to decontaminate non-disposable protective clothing and equipment; or any waste resulting directly from CERCLA or RCRA past-practice investigation, treatability study, or well maintenance/abandonment activity.

Key Facility. Facilities designated as Key Facility in accordance with *Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Action Plan*, Section 8.1.2 (e.g., Plutonium Uranium Extraction Plant [PUREX], Plutonium Finishing Plant, Fast Flux Test Facility, Uranium Oxide Facility [UO₃], Reduction Oxidation Facility [REDOX or 202-S Building], and DOE's old reactor buildings [specifically: 105-B, 105-C, 105-F, 105-D, 105-DR, 105-H, 105-KE, 105-KW, and 105/109-N buildings]). The Tri-Party Agreement, Section 8.0, specifies a process for addressing decommissioning of Key Facilities.

Large Onsite Sewer System (LOSS). Any onsite sewage system with design flows, at any common point, greater than 3,500 gallons per day.

Environmental Protection Processes

Lead Regulatory Agency. The agency (the EPA or the Washington State Department of Ecology) which is assigned regulatory oversight responsibility with respect to actions under the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) regarding a particular Operable Unit, treatment, storage, and/or disposal group/unit, or milestones pursuant to Section 5.6 of the Tri-Party Agreement.

Load-Bearing Structural Member. Any load-supporting member of a facility, such as beams and load supporting walls.

Maintenance - Air. An activity exempt from clean air requirements for prior approval, includes maintenance, repair, and replacement that the authorized regulatory agency determines to be routine for a source category (40 CFR 61.15(d)). "Routine" means: (a) maintenance, repair, or *replacement-in-kind* performed on systems, equipment, components, or devices of an emission unit's abatement technology as a planned part of an established inspection, maintenance, or quality assurance program that does not increase the emission unit's operating design capacity; or (b) normal, day-to-day operations of a facility (WAC 246-247-030(23)).

Major - Refrigerant System. Any maintenance, service or repair involving the removal of any or all of the following appliance components: compressor, condenser, evaporator, or auxiliary heat exchanger coil.

Maximally Exposed Individual (MEI). Any member of the public (real or hypothetical) who abides or resides in an unrestricted area, and may receive the highest total effective dose equivalent from the emission unit(s) under consideration, taking into account all exposure pathways affected by the radioactive air emissions.

Modification (Modifying). Any change, addition, or alteration to an area, facility, structure, system or component that alters the appearance, environmental impact, design basis, or expected equipment life (for example building color, drainage, habitat preservation, flow rates, seismic strengths, delta pressures, control parameters, program sequence, load carrying capacity, response time, fire suppression/detection capabilities, shielding, criticality spacing, corrosion resistance). Like-for-like is *not* considered modification.

Modification - Air. Any physical change in, or change in the method of operation of, an emission unit that could increase the amount of radioactive materials emitted or could result in the emission of any radionuclide not emitted previously. This definition includes the cleanup of land contaminated with radioactive material; the decommissioning of buildings, structures, or plants; or changes that would increase the operating design capacity of the emission unit. This definition excludes routine *maintenance*; routine repair; *replacement-in-kind* of routinely changed-out control equipment; any increases in the production rate or hours of operation, provided the emission unit does not exceed the release quantities specified in the license application or the operating design capacity approved by the Washington State Department of Health (WDOH); addition of abatement technology, as long as WDOH has agreed that it is not less environmentally beneficial than existing approved controls; and changes that result in an increase in the quantity of emissions of an existing radionuclide that WDOH agrees will be offset by an equal or greater decrease in the quantity of emissions of another radionuclide that is deemed at least as hazardous with regard to its *total effective dose equivalent* to the maximally exposed individual.

Environmental Protection Processes

Moth-Balling (Refrigerant System). System moth-balling is the intentional shutting down of a refrigeration appliance undertaken for an extended period of time by the owners or operators of that facility, where the refrigerant has been evacuated from the appliance or the affected isolated section of the appliance, at least to atmospheric pressure.

National Environmental Policy Act (NEPA) Trained Individual: An individual with assigned NEPA signature responsibility (such as an ECO or other trained individual, as designated by the Responsible Manager) who has attended a NEPA-specific (2-day minimum) training course or the DOE NEPA Process course (Course #170130) and is identified in writing by the Responsible Manager or ECO. Delegation of these activities and/or signature approval responsibilities can only be to a trained individual.

New Source. As defined by the *Clean Air Act*, the construction or modification of a source that increases the amount of any contaminant emitted by such source or that results in emission of any air contaminant not emitted previously.

Ninety (90)-Day Accumulation Area Custodian. The 90-Day Accumulation Area Custodian is any individual delegated by the Responsible Manager to be in charge of one or more 90-day waste accumulation areas.

Nonsignificant. A potential offsite total effective dose equivalent of less than 1.0 mrem per year.

Notice of Construction (NOC). An application submitted to the EPA and/or WDOH for approval for proposed construction or installation of a *new source* or a modification to a source.

Occurrence Notification Center (ONC). A facility that is staffed 24 hours per day, 7 days per week, to provide infrastructure for reporting Hanford Site occurrences. The ONC staff is responsible for communicating information regarding occurrences to responsible DOE and prime contractor management for the Hanford Site, DOE-Headquarters, and offsite agencies.

Operable Unit. A discrete portion of the Hanford Site, as identified in Section 3.3 of the *Hanford Federal Facility Agreement and Consent Order Action Plan*. An operable unit at Hanford is a group of land disposal sites placed together for the purposes of doing a Remedial Investigation/Feasibility Study and subsequent cleanup actions. The primary criteria for placement of a site into an operable unit includes geographic proximity, similarity of waste characteristics and site type, and the possibility for economies of scale.

Pesticide. Any substance or mixture of substances intended to prevent, destroy, control, repel, or mitigate any insect, rodent, snail, slug, fungus, weed, and any other form of plant or animal life or virus (except a virus on or in a living person or other animal normally considered to be a pest). This includes any substance or mixture of substances intended to be used as a plant regulator, defoliant, or desiccant, and any chemical additive used to enhance pesticide action (i.e., adjuvant). A product that is not intended to prevent, destroy, repel, or mitigate a pest, or to defoliate, desiccate or regulate the growth of plants, is not considered to be a pesticide. The following types of products or articles are not considered to be pesticides, unless a pesticidal claim is made on their labeling or in connection with their sale and distribution: (a) deodorizers, bleaches, and cleaning agents; (b) products not containing toxicants, intended only to attract pests for survey or detection purposes, and labeled accordingly; (c) products that are intended to exclude pests only by providing a physical barrier against pest access, and which contain no toxicants, such as certain pruning paints to trees.

Environmental Protection Processes

Periodic Confirmatory Measurement (PCM). Measurement based on good engineering judgment, (such as radiological monitoring, ambient air monitoring, grab sampling, etc.) used to periodically verify low emissions from a source. Approved methods for PCM are listed in the *Hanford Site Air Operating Permit*.

Point of Generation. A "point of generation" occurs when a determination is made that the material is no longer useful (or the point that the material is discarded) or when an abandoned solid waste/dangerous waste/mixed waste is actively managed. A new point of generation is established after treatment is performed on a dangerous and/or mixed waste. The EPA and the Washington State Department of Ecology (Ecology) have provided guidance for many materials when a point of generation occurs. Due to the complicated nature of some waste generating systems or processes, it can be difficult to determine the precise point at which a waste is generated.

If multiple treatment activities are necessary to meet applicable land disposal restrictions (LDRs), the point of generation for a treatment residue shall be established after the last treatment in the treatment train. A waste that was treated must be redesignated after treatment.

Establishing a new point of generation after treatment usually does not remove LDR requirements identified at the original point of generation of the waste; however, a new point of generation for LDR purposes could be established. EPA/Ecology guidance is used to determine if a new point of generation is established for LDR purposes on a case-by-case basis.

Point Source. A discrete, well-defined location from which air emissions originate, such as a stack, vent, or other functionally equivalent structure.

Pollution Control (Abatement) Equipment. Equipment that collects airborne effluent not to be returned to the process stream. If the material removed constitutes a waste or byproduct, the equipment is considered pollution control equipment. Ductwork, by design, is *not* considered pollution control equipment under this definition.

Polychlorinated Biphenyl (PCB) Article. Any manufactured article, other than a *PCB container*, that contains PCBs and whose surface(s) has been in direct contact with PCBs. A "PCB article" includes *capacitors*, transformers, electric motors, pumps, pipes and any other manufactured item, which: 1) is formed to a specific shape or design during manufacture; 2) has end use function(s) dependent in whole or in part upon its shape or design during end use; and 3) has either no change of chemical composition during its end use or only those changes of composition that have no commercial purpose separate from that of the PCB Article. [Adapted from 40 CFR 761.3]

Polychlorinated Biphenyl (PCB) Capacitor. A device for accumulating and holding a charge of electricity and consisting of conducting surfaces separated by a dielectric. (Also see *PCB large capacitors* and *PCB small capacitors*.)

Polychlorinated Biphenyl (PCB) Container. Any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or *PCB articles* and whose surface(s) has been in direct contact with PCBs. [Adapted from 40 CFR 761.3]

Polychlorinated Biphenyl (PCB) Contaminated. Transformers or other items having dielectric fluid with PCB concentrations of ≥ 50 ppm, but < 500 ppm. Mineral oil-filled electrical equipment (see *PCB*

Environmental Protection Processes

Contaminated Electrical Equipment) is assumed to be at least "PCB-contaminated" unless they are circuit breakers, reclosers, or cable. This assumption can be overcome by testing.

Polychlorinated Biphenyl (PCB) Contaminated Electrical Equipment. Any electrical equipment, including but not limited to, transformers (including those used in railway locomotives and self-propelled cars), *capacitors*, circuit breakers, reclosers, voltage regulators, switches (including sectionalizers and motor starters), electromagnets, and cable, and containing 50 ppm or greater PCBs, but less than 500 ppm PCBs. Oil-filled electrical equipment other than circuit breakers, reclosers, and cable whose PCB concentration is unknown are assumed to be *PCB-contaminated* electrical equipment. (See 40 CFR 761.30(a) and (h) for provisions permitting reclassification of electrical equipment containing 500 ppm or greater PCBs to PCB-contaminated electrical equipment).

Polychlorinated Biphenyl (PCB) Item. Any *PCB article*, PCB article container, *PCB container*, or PCB equipment, that deliberately or unintentionally contains or has a part of it any PCBs.

Polychlorinated Biphenyl (PCB) Large Capacitors. Electrical *capacitors* that contain 1.35 kg (3 lb) or more of dielectric fluid. (See additional descriptions in 40 CFR 761.3.)

Polychlorinated Biphenyl (PCB) Liquids. A homogeneous flowable material containing PCBs and no more than 0.5 percent by weight non-dissolved material.

Polychlorinated Biphenyl (PCB) Small Capacitors. Electrical *capacitors* that contain >1.36 (3 lb) of dielectric fluid. (See additional descriptions in 40 CFR 761.3.)

Polychlorinated Biphenyl (PCB) Transformers. Transformers that contain dielectric fluid having PCB concentrations ≥ 500 ppm. U.S. Environmental Protection Agency, Region 10 applies a working presumption that transformers lacking a name plate or other evidence that they were not designed to use concentrated PCB dielectric fluid, are PCB transformers. (See 44 Federal Register 31517.)

Potential-to-Emit (for Radioactive Air Emission Sources) (PTE). The rate of release of radionuclides from an emission unit based on the actual or potential discharge of the effluent stream that would result if all abatement control equipment did not exist, but operations are otherwise normal. The PTE can be determined by one of the following methods:

- (a) Multiply the *annual possession quantity* of each radionuclide by the release fraction for that radionuclide, depending on its physical state. Use the following release fractions:
 - (i) 1 for gases;
 - (ii) 10^{-3} for liquids or particulate solids; and
 - (iii) 10^{-6} for solids.

Determine the physical state for each radionuclide by considering its chemical form and the highest temperature to which it is subjected. Use a release fraction of one if the radionuclide is subjected to temperatures at or above its boiling point; use a release fraction of 10^{-3} if the radionuclide is subjected to temperatures at or above its melting point, but below its boiling point. If the chemical form is not known, use a release fraction of one for any radionuclide that is heated to a temperature of one hundred degrees Celsius or more, boils at a temperature of one hundred degrees Celsius or less, or is intentionally dispersed into the environment. Other release fractions may be used only with the Washington State Department of Ecology (Ecology)'s approval; or

Environmental Protection Processes

- (b) Perform a back-calculation using measured emission rates and in situ measurements of the control equipment efficiencies, as approved by Ecology; *or*
- (c) Measure the quantities of radionuclides captured in each control device, coupled with in situ measurements of the control equipment efficiencies, as approved by Ecology; *or*
- (d) Sample the effluent upstream from all control devices, as approved by Ecology; *or*
- (e) Use an alternative method approved by Ecology.

Primary Indication Device. Calibrated or field-tested indication devices associated with the final stage of environmental abatement and/or the emissions measurement system should be considered first for supplying the primary indication device(s) data.

Project. A temporary endeavor, typically commissioned by senior management to create a unique product, service, or result. A "project" typically includes many kinds of activities and tasks, and has a defined scope, schedule, and budget (once the project baseline is approved). While many things meet this definition, HNF-RD-14988, *Project Management Requirements*, Appendix A, provides a definition of "project" as used by FH.

Project Manager for the Lead Regulatory Agency. An individual responsible for implementing the terms and conditions of the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) at the specific Operable Unit level on behalf of his/her respective Party. The Project Manager has direct responsibility for completion of targets and milestones and has authority to agree to modifications of scope and schedule, in accordance with Section 12.0 of the *Tri-Party Agreement Action Plan*.

Purgewater. Groundwater monitoring for radioactive and chemical constituents at the Hanford Site is required by DOE, the Washington State Department of Ecology, and EPA. Groundwater is withdrawn from wells for: (1) developing newly constructed groundwater monitoring wells; (2) purging of existing wells during sample collection; (3) aquifer testing (used to help define the physical characteristics of the Hanford Site's hydrogeology); (4) periodic cleaning and renovation of existing monitoring wells; and (5) well decommissioning. All groundwater extracted from the aquifer pursuant to these five actions is defined as "purgewater". Groundwater extracted for the purpose of remediation is excluded from the definition of "purgewater".

Radioactive Material. Any material that spontaneously emits ionizing radiation (e.g., X- or gamma rays, alpha or beta particles, neutrons). The term "radioactive material" also includes materials onto which radioactive material is deposited or into which it is incorporated. For purposes of practicality, 10 CFR 835 establishes certain threshold levels below which specified actions, such as posting, labeling, or individual monitoring, are not required. These threshold levels are usually expressed in terms of total activity or concentration, contamination levels, individual doses, or exposure rates.

Radiological Material Area. Any area within a controlled area, accessible to individuals, in which items or containers of radioactive material exist and the total activity of radioactive material exceeds the applicable values provided in HNF-5173, *PHMC Radiological Control Manual*, Appendix 4A.

Record of Decision (ROD). A public record decision *National Environmental Policy Act* document following preparation of an environmental impact statement that shall state what the decision was,

Environmental Protection Processes

identify all alternatives, and state whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not selected. Under a separate process, the *Comprehensive Environmental Response, Compensation and Liability Act* process also results in a different type of ROD describing the accepted remedial remedies for the action.

Regulated Asbestos-Containing Material (RACM). Any (a) friable asbestos material, (b) Category I nonfriable asbestos-contained material (ACM) that has become friable; (c) Category I nonfriable ACM that will be, or has been, subjected to sanding, grinding, cutting, or abrading; or (d) Category II nonfriable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Regulated Substance. As defined in WAC 173-360-120: (a) includes any substance defined in section 101(14) of the *Comprehensive Environmental Response, Compensation and Liability Act*; (b) excludes any substance regulated as a hazardous waste under Subtitle C of the *Resource Conservation and Recovery Act* (also known as the *Federal Solid Waste Disposal Act*), or a mixture of such hazardous waste and any other regulated substances; (c) includes "petroleum," including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure; and (d) excludes propane or asphalt or any other petroleum product that is not liquid at standard conditions of temperature and pressure.

Refrigerant. Any class I or class II substance or substitute substance used in a motor vehicle air conditioner or refrigerating unit. Refrigerants have also been classified as *ozone depleting substances* (ODSs). The use and disposal of ODS compounds is highly regulated.

Regulated Underground Storage Tanks (USTs). Tanks subject to regulation under 40 CFR 280. Underground storage tanks not subject to UST requirements include: (a) tanks used for storing heating oil for consumptive use on the premises where stored; (b) septic tanks; (c) tanks with less than 10% of their volume below the ground; (d) storm water or wastewater collection systems; (e) flow-through process tanks; (f) tanks situated in an underground area (such as a basement) if the storage tank is situated upon or above the surface of the floor; (g) UST systems holding hazardous wastes or a mixture of hazardous wastes and other *regulated substances* listed under Subtitle C of the *Solid Waste Disposal Act*; (h) wastewater treatment tank systems that are part of a wastewater treatment facility regulated under the *Clean Water Act*; (i) equipment or machinery that contains regulated substances for operational purposes only; (j) UST systems whose capacity is 110 gallons or less; (k) UST systems that contains a de minimis concentration of regulated substances; and (l) emergency *spill* or overflow containment UST systems that are expeditiously emptied after use. The following are exempted from all UST requirements except for release notification requirements: (a) UST systems containing radioactive materials that are regulated under the *Atomic Energy Act*; (b) UST systems that are a part of emergency generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR 50, Appendix A; and (c) UST systems with field-constructed tanks. USTs that contain fuel solely for use by emergency generators are deferred from leak detection system requirements only.

Release. A release could mean any of the following:

- Discharge (per *Resource Conservation and Recovery Act* [RCRA], 40 CFR 260.10): The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.
- Discharge (per *Hazardous Waste Management Act* [HWMA], WAC 173-303-040): The accidental or

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Environmental Protection Processes

intentional release of a hazardous substance, dangerous waste, or dangerous waste constituents such that the substance, waste, or waste constituent might enter or be emitted to the environment.

- Disposal (per RCRA, 40 CFR 260.10): The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof might enter the environment or be emitted into the air or discharged into any waters, including groundwater. Solid waste is any material that is solid, liquid, semisolid, or gaseous.
- Disposal (per HWMA, WAC 173-303-040): The discharging, discarding, or abandonment of dangerous waste or the treatment, decontaminating, or recycling of such waste once discarded or abandoned. This includes the discharge of any dangerous waste into or onto any land, air, or water.
- Leak (per *Toxic Substances Control Act*, 40 CFR 761.3): Any instance in which a polychlorinated biphenyl (PCB) article, PCB container, or PCB equipment have any PCBs on any portion of the external surface. Leaks include seeps, weeps, and oily residue.
- Release (per *Comprehensive Environmental Response, Compensation and Liability Act* [CERCLA], 40 CFR 300.5): Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of containers [drums or boxes], and other closed receptacles containing any hazardous substance or pollutant or contaminant).
- Release (per *Emergency Planning and Community Right-to-Know Act* [EPCRA], 40 CFR 355.20): Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of containers [drums or boxes], and other closed receptacles) of any hazardous chemical, extremely hazardous substance, or CERCLA hazardous substance.
- Release (per HWMA, WAC 173-303-040): Any intentional or unintentional spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of dangerous waste or dangerous constituents as defined in WAC 173-303-646 (1)(c), into the environment, and includes the abandonment or discarding of containers (barrels or boxes) and other receptacles containing dangerous waste or dangerous waste constituents. The term includes the definition of release at RCW 70.105D.020(10).

Renovation (Asbestos). Renovation means altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

Replacement-In-Kind. The substitution of existing systems, equipment, components, or devices of an emission unit control technology with systems, equipment, components, or devices with equivalent, or better, performance specifications that will perform the same function(s).

Responsible Manager. A designated individual accountable for the safety of employees and regulatory compliance within a facility or for a project. This individual is responsible for work activities, ensuring compliance with configuration requirements, and for reviewing and validating the scope of work. The function of Responsible Manager will normally be performed by the Operations Manager, Facility

Environmental Protection Processes

Manager, Maintenance Manager, Engineering Manager, Project Manager, Environmental Protection Manager, or Construction Manager. One of the duties of the Responsible Manager is to ensure qualified personnel are available to delegate environmental actions to.

Routine Activities. The normal day-to-day operations of a facility, generally defined by activities occurring at a given location within the previous 2 years, and recognized by the applicable Clean Air authority(ies) as being of a routine nature. *Maintenance*, repair, or *replacement-in-kind* are generally considered routine activities if they do not increase the operating design capacity or the *potential to emit* of the emission unit. Routine activities do not require concurrence by the applicable Clean Air authority(ies) to perform.

Satellite Accumulation Area Custodian. The satellite accumulation area (SAA) Custodian is any individual delegated by the Responsible Manager to be in charge of one or more SAAs.

Significant (Air). "Significant" is defined in WAC 246-247-030(25) as "the *potential-to-emit* airborne radioactivity at a rate that could increase the TEDE [*total effective dose equivalent*] to the MEI [maximally exposed individual] by at least 1.0 mrem/yr as a result of a proposed *modification*."

Shutdown. Any unplanned shutdown of a ventilation or abatement control system component that could result in static or positive atmospheric pressure within a building or structure, where such component is operated for airborne contamination control. If, as part of the operation of the ventilation system as designed, an automatic and immediate switchover to a backup component (e.g., fan) takes place upon loss of the primary component, and if there is no loss of abatement or emissions measurement capability as a result, then a shutdown is not considered to have occurred. Use of the term "shutdown" in the cited regulatory section also includes any shutdown of an emissions measurement system component, where such shutdown results in a loss of required measurement capability.

Sitewide Categorical Exclusions (SWCX). Categorical exclusions already approved by DOE-RL for use at the Hanford Site. Use of a SWCX requires documentation in the project and/or work control files. The specific SWCX list for the Hanford Site is available from the EP website.

Slurry Waste. Waste that includes groundwater slurries and drilling fluids, but excludes groundwater and free liquids separated from groundwater slurries.

Small Appliances. Any of the following products that are fully manufactured, charged, and hermetically sealed in a factory with five 5 pounds or less of refrigerant: refrigerators, and freezers designed for home use, room air conditioners (including window air conditioners and packaged terminal air conditioners), packaged terminal heat pumps, dehumidifiers, under-the-counter ice makers, vending machines, and drinking water coolers.

Specific activity. Any discrete activity that applies to a specific facility, process or activity type that is subject to environmental requirements. For example, constructing or modifying underground storage tanks, operating a treatment, storage, and/or disposal facility, closing an injection well, etc.

Spill. Any intentional or unintentional spilling; leaking; pouring; emitting; dripping; emptying; discharging; injecting; pumping; escaping; leaching; leaking; seeping; or weeping of a *hazardous chemical*, hazardous waste, extremely hazardous substance, *Comprehensive Environmental Response, Compensation and Liability Act* hazardous substance, pollutant or contaminant, regardless of whether

Environmental Protection Processes

released to the environment inside a building or to the outside environment. The substance spilled could be liquid, solid, semisolid, or gaseous.

Spill/Release Polychlorinated Biphenyls (PCBs). Both intentional or unintentional spills, leaks, and other uncontrolled discharges where the release results in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases. [*Toxic Substances Control Act*, 40 CFR 761.123]

Startup. Setting in operation, for any purpose, an emission unit with potential for airborne radioactive emissions.

System-Dependent. *Refrigerant* recovery equipment that requires the assistance of components contained in an appliance to removed the refrigerant from the appliance.

Technician, Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR). An HVACR technician is any person who performs maintenance, service, repair, or disposal of appliances where the appliances could reasonably be expected to release Class I/II *refrigerants* from appliances into the atmosphere by violating the integrity of the refrigerant circuit.

Timely. Regarding monitoring and alarms, means adjusting the respective indicating equipment to indicate elevated emissions at the earliest onset, without resulting in an excessive number of alarms due to normal fluctuations in background radiation or normal fluctuations in emissions from the source.

Total Effective Dose Equivalent (TEDE). The sum of the dose equivalent due to external exposures and the *committed effective dose equivalent* (CEDE) due to internal exposures.

Transient or Abnormal Condition. Since assessment of a *condition* requires the assumption that the "transient or abnormal condition" is "allowed to persist," WAC 246-247-080(5) exemptive language addressing "transient or abnormal condition lasting more than 4 hours" has not been recognized by the regulatory agency as an effective exemption. The agency has pointed out that significant conditions clearly meriting notification may occur over a period of less than 4 hours, and, therefore, the "allowed to persist" clause overrides the "4 hours or less" exclusion.

Treatment, Storage, and/or Disposal Operating Record. The Hanford Facility Operating *Record for Resource Conservation and Recovery Act* (RCRA) treatment, storage, and/or disposal (TSD) units consists of two files, a General Information File and a Unit-Specific File. The General Information File contains information of a facility-wide nature and is maintained by Environmental Protection Program Services. The Unit-Specific File is maintained by the individual TSD units. Condition II.I. of the *Hanford Facility RCRA Permit* contains a specific discussion of the contents of the Hanford Facility Operating Record.

Unknown Waste. Limited to wastes the generator truly cannot designate without laboratory analysis. Specifically, an unknown waste exists when the generator has no knowledge of the process that produced the waste or of the constituents, characteristics, and criteria of the waste.

Waste Information Data System (WIDS). As specified in the *Hanford Federal Facility Agreement and Consent Order* (the Tri-Party Agreement [TPA]), a *Waste Information Data System* (WIDS) (an electronic database) is used to identify all waste management units on the Hanford Site; describe the current status of each unit (e.g., active/inactive; treatment, storage, and/or disposal unit; *Comprehensive*

Environmental Protection Processes

Environmental Response, Compensation and Liability Act [CERCLA] past-practice, or *Resource Conservation and Recovery Act* [RCRA] past-practice); and include other descriptive information (e.g., location, waste types).

Waste Management Unit. A waste management unit represents any location within the boundary of the Hanford Site that may require action to mitigate a potential environmental impact. This would include all solid waste management units as specified under Section 3004(u) of the *Resource Conservation and Recovery Act* (RCRA). Waste management units include the following:

- Waste disposal units (including RCRA disposal units),
- Unplanned release units (including those resulting from *spills*),
- Inactive contaminated structures,
- *Inactive miscellaneous underground storage tanks* (IMUSTs),
- RCRA treatment and storage areas, and
- Other storage areas.

Waste management units do not include 90-day storage areas and satellite accumulation areas. These areas are documented separately in the operating record per Condition II.I.1.a. of the Hanford Facility RCRA Permit.

Work Activity. A discrete work process to accomplish specific end points (e.g., construction, operations, maintenance, demolition, waste management, etc.) that integrates and implements applicable environmental requirements from the various regulatory disciplines (e.g., *Resource Conservation and Recovery Act*, *Toxic Substances Control Act*, *National Environmental Policy Act*).

Enclosure 3
Decision tree

A
Washington State
Department of Health
Notification Requirements

B
Routine Event?

Yes

No

C
Event Exempted?

Yes

No

D
Pre-planned
& Approved?

Yes

No

E
No Notification
Required/Document
Assessment to File

F
Emissions
Pre-Approved
(permitted)?

Yes

No

G
Was Bypass or
Failure of
Monitoring
Equipment
Avoided?

Yes

No

H
Were Emission
Measurements
Required?

Yes

No

I
Unexpected
Operational
Change
Affecting
Emissions
Avoided?

Yes

No

J
Exceeding of
Emission
Limit or
Health
Risk Limit
Avoided?

Yes

No

K
Was Exceedance
of Design
Standard
Avoided?

Yes

Yes

No

L
Provide Notification to the
Environmental Protection
Single Point of Contact

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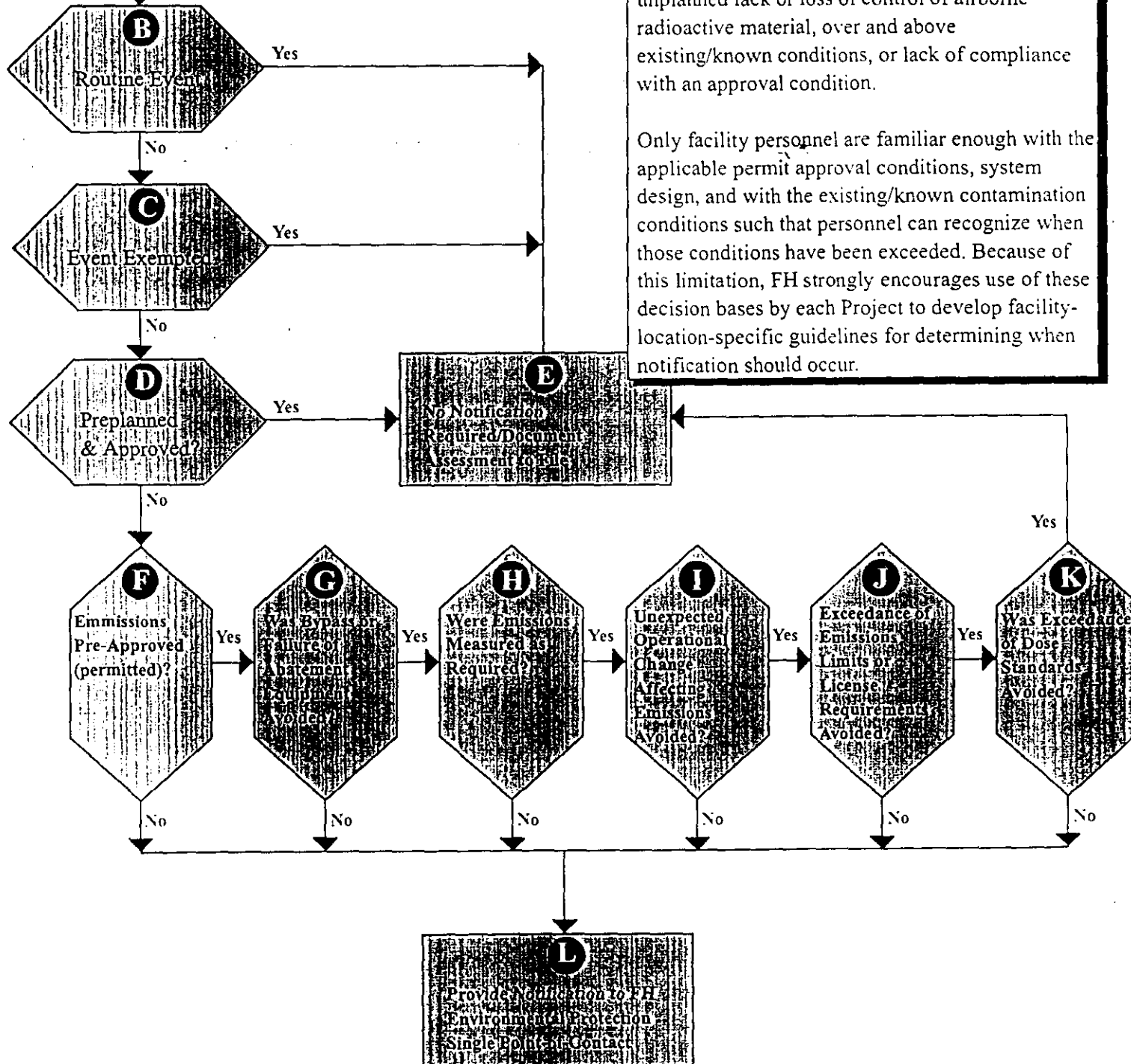
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A
Washington State
Department of Health
Notification Requirements

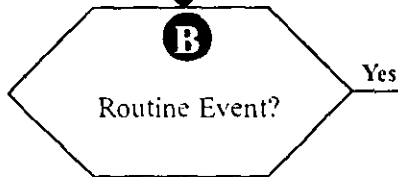
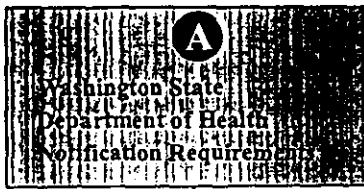
**A. Washington State Department of Health
Notification Requirements**

The key intent of the notification requirement is to inform the WDOH of a potential or actual unplanned lack or loss of control of airborne radioactive material, over and above existing/known conditions, or lack of compliance with an approval condition.

Only facility personnel are familiar enough with the applicable permit approval conditions, system design, and with the existing/known contamination conditions such that personnel can recognize when those conditions have been exceeded. Because of this limitation, FH strongly encourages use of these decision bases by each Project to develop facility-location-specific guidelines for determining when notification should occur.



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B. Routine Event?

Pre-planned events or conditions are not addressed under the notification process or requirements.

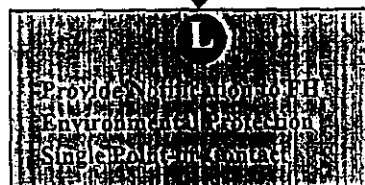
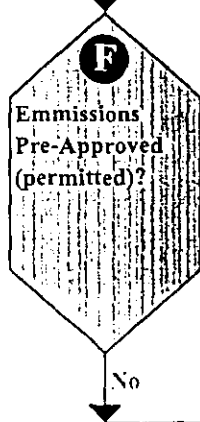
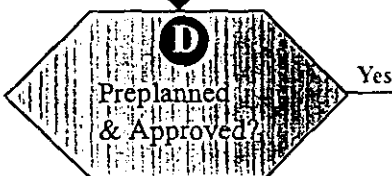
Pre-planned events or conditions are either exempted from notification due to their routine nature, or they may require prior approval in accordance with the Notice of Construction requirements (ref. HNF-PRO-450).

If the condition meets the definition of routine, it is exempt from notification. If there is any question concerning the routine nature of the condition, there must be documentation available (e.g., established operations procedures specific to the activity creating the situation) to demonstrate the condition is routine.

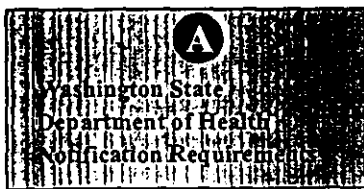
"Routine" means:

Maintenance, repair, or replacement-in-kind performed on systems, equipment, components, or devices of an emission unit's abatement technology as a planned part of an established inspection, maintenance, or quality assurance program that does not increase the emission unit's operating design capacity; or
Normal, day-to-day operations of a facility.

Reference: WAC-246-247-030(23).

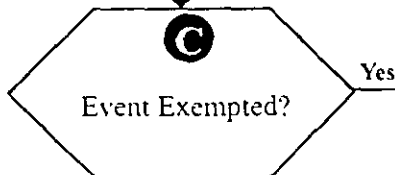


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Yes

No



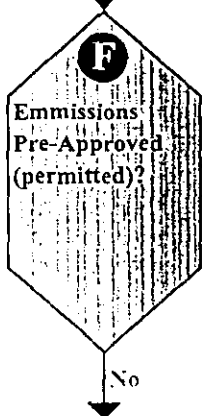
Yes

No



Yes

No



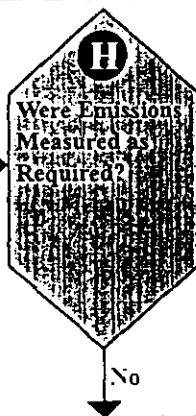
Yes

No



Yes

No



Yes

No



Yes

No



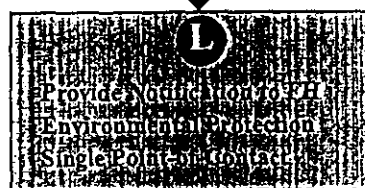
Yes

No



Yes

No



C. Event Exempted?

The assessment of this question should consider whether the condition along with its potential for airborne emissions, is exempted as part of ROUTINE MAINTENANCE, REPAIR, or REPLACEMENT-IN-KIND performed on an emission unit's abatement technology as part of an established inspection, maintenance, or quality assurance program.

WAC 246-247-030-(16) states in part that increases in emissions are exempted if they result from "routine maintenance, routine repair, or replacement-in-kind".

"Routine" means

Maintenance, repair, or replacement-in-kind performed on systems, equipment, components, or devices of an emission unit's abatement technology as a planned part of an established inspection, maintenance, or quality assurance program that does not increase the emission unit's operating design capacity; or Normal, day-to-day operations of a facility.

"Replacement-in-kind" means the substitution of existing systems, equipment, components, or devices with equivalent, or better, performance specifications that will perform the same function(s).

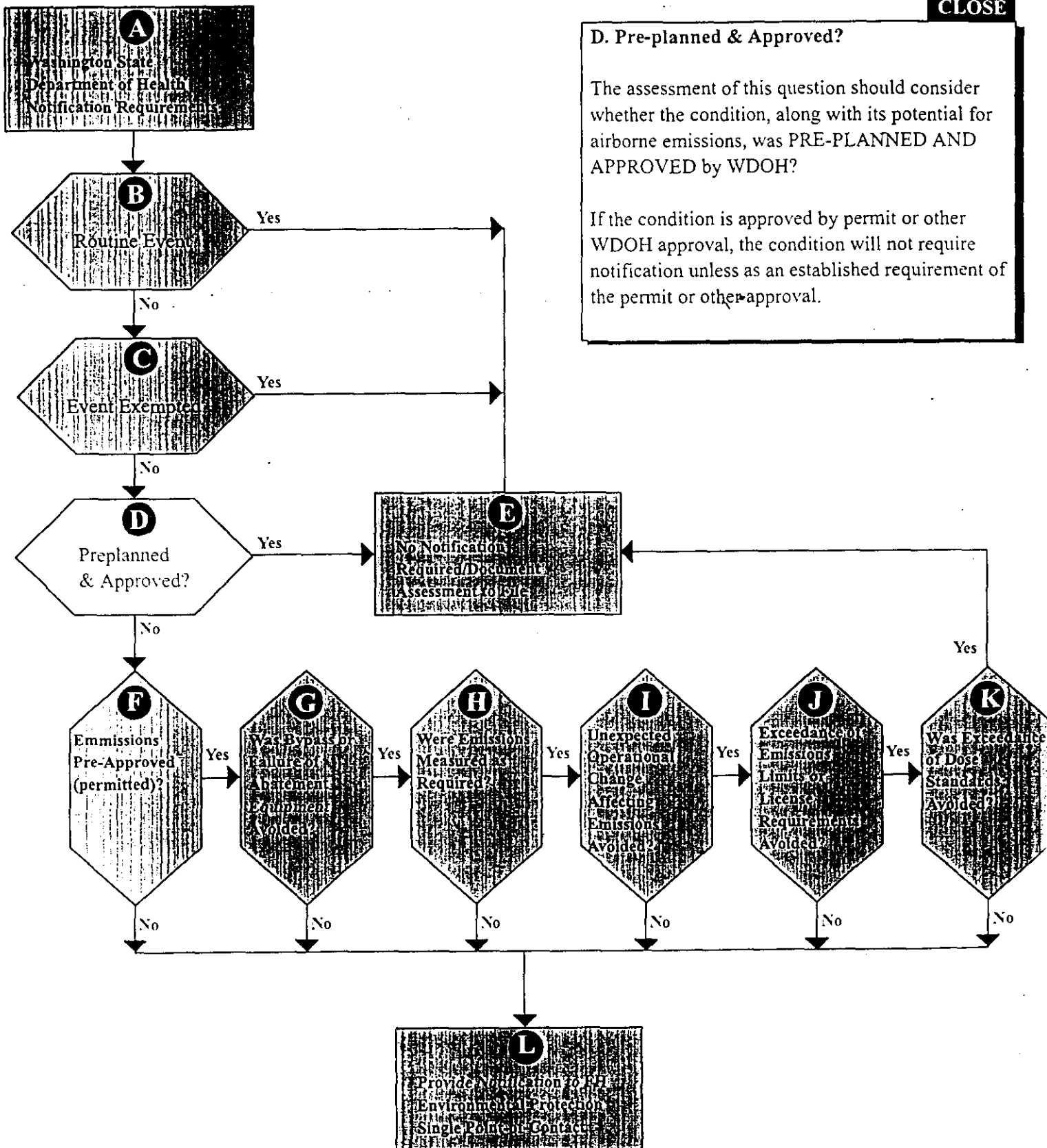
Reference: WAC-246-247-030(22).

CLOSE

D. Pre-planned & Approved?

The assessment of this question should consider whether the condition, along with its potential for airborne emissions, was PRE-PLANNED AND APPROVED by WDOH?

If the condition is approved by permit or other WDOH approval, the condition will not require notification unless as an established requirement of the permit or other approval.

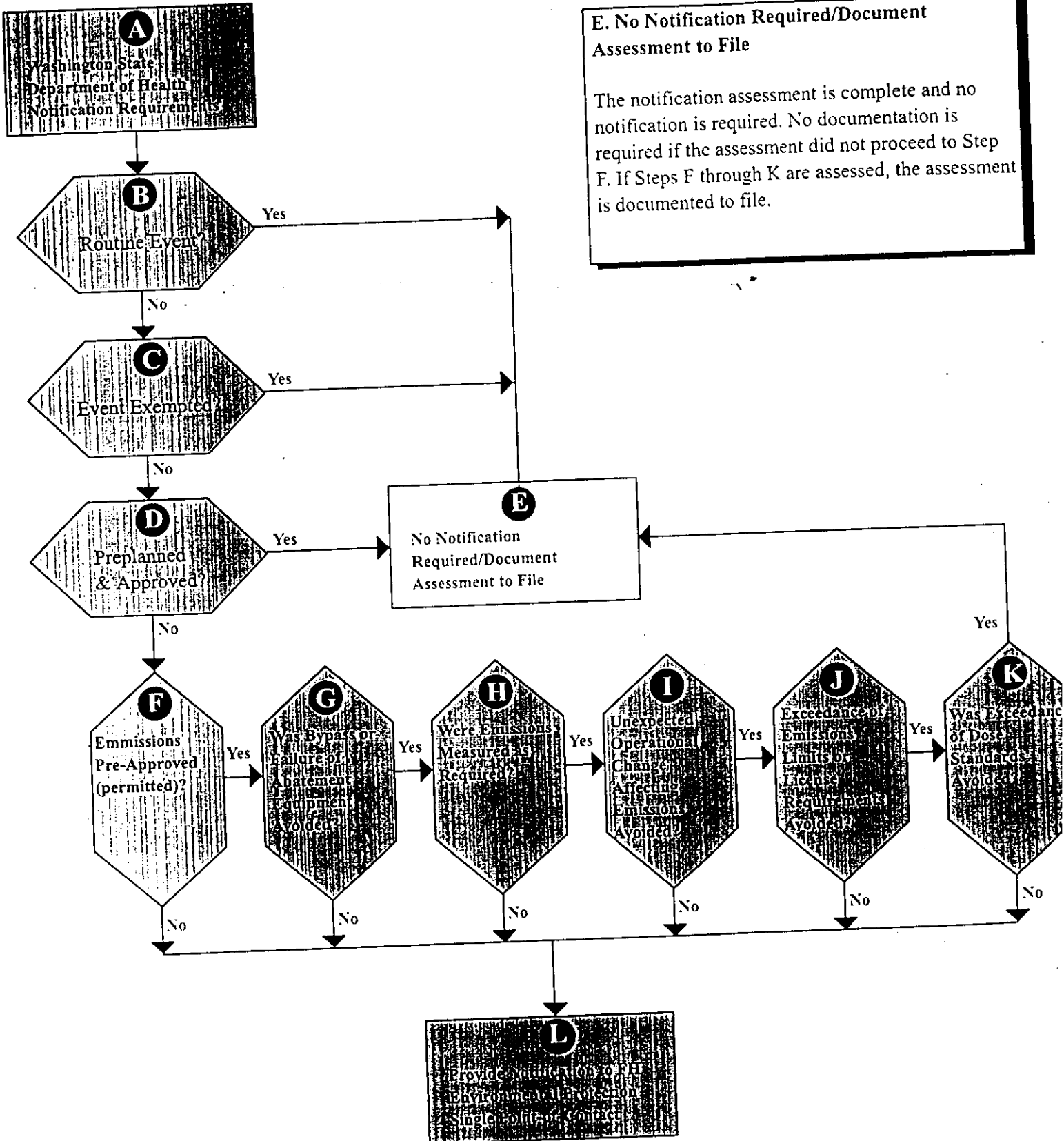


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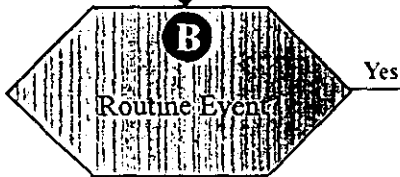
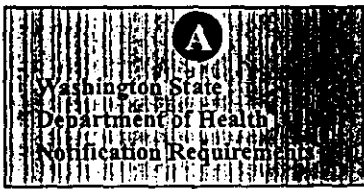
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E. No Notification Required/Document Assessment to File

The notification assessment is complete and no notification is required. No documentation is required if the assessment did not proceed to Step F. If Steps F through K are assessed, the assessment is documented to file.



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Yes

No



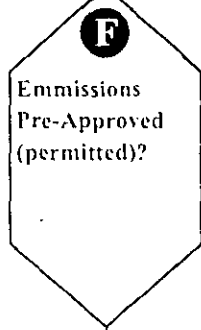
Yes

No



Yes

No



Yes

No



F. Emissions Pre-Approved (permitted)?

Note: Step F, as described below, will become effective once the Hanford Facility AOP becomes effective.

The assessment of this question should consider whether the condition, along with its potential airborne emissions, is in compliance with all permit requirements recognized under AOP.

A prompt report to the WDOH specifying the probable cause of such deviations, and any corrective actions or preventive measures taken is required if there has been a deviation from a listed AOP requirement, including (but not limited to) those attributed to upset conditions as defined in the AOP.

The permitting authority has defined 'prompt' in the AOP. The following text is from AOP Section 4.5, Permit Deviation Reporting.

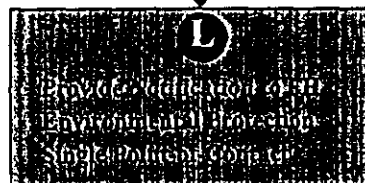
"Potential threats to human health or safety"

Deviations which represent a potential threat to human health or safety, shall be reported promptly or as soon as possible. Promptly as defined here means as soon as possible following discovery¹, but in no case later than 12 hours after discovery¹ of a potential threat to human health or safety. This notice contains a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the immediate reporting requirements of WAC 173-401-615(3)(b), WAC 173-400-107(3) and WAC 246-247-080(5) (state only).

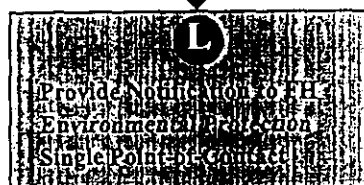
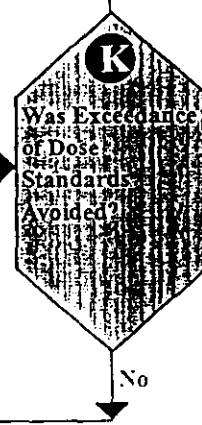
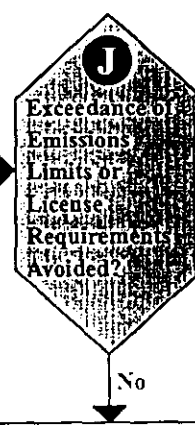
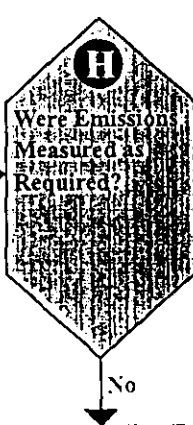
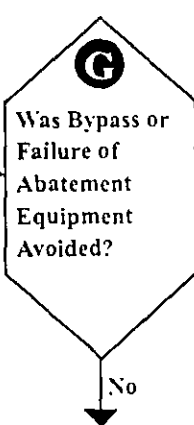
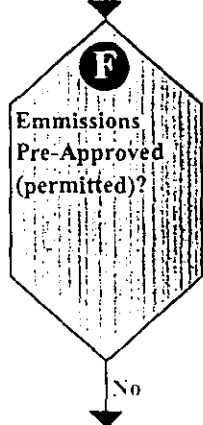
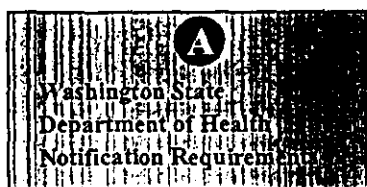
Non-health or safety related deviations

Other deviations from permit requirements or excess emissions shall be reported within 30 days after the end of the month during which the deviation is discovered or as part of routine emission monitoring reports." [WAC 173-401-615(3)(b) and WAC 173-400-107(3)]

Reference: WAC 173-401-615(3).



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CLOSE**G. Was Bypass or Failure of Abatement Equipment Avoided?**

The assessment of this question should consider whether a nonroutine **BYPASS OR PARTIAL OR COMPLETE FAILURE OF REQUIRED ABATEMENT CONTROL TECHNOLOGY** occurred. Tables 1.0 and 1.1 of Attachment 2 of the AOP list required abatement control technology.

This includes a nonroutine shutdown* of any part of a forced flow ventilation system providing contamination control. Notification is required if that system is not airtight to the point that air leakage would not occur through other than the HEPA filters or other abatement controls (i.e., fugitive, unfiltered emissions) if the shutdown component were to remain shut down.

* By 'Shutdown' is meant any unplanned shutdown of a ventilation or abatement control system component which could result in static or positive atmospheric pressure within a building or structure, where such component is operated for airborne contamination control. If, as part of the operation of the ventilation system as designed, an automatic and immediate switchover to a backup component (e.g., fan) takes place upon loss of the primary component, and if there is no loss of abatement or emissions measurement capability as a result, a shutdown is considered not to have occurred.

Reference: WAC 246-247-080(5)

Hanford Air Operating Permit, Section 4.5.

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CLOSE

A
Washington State
Department of Health
Notification Requirement

B
Routine Event
Yes
No

C
Event Exempted?
Yes
No

D
Preplanned
& Approved?
Yes
No

H. Were Emissions Measured as Required?

The assessment of this question should consider whether there is any lack or loss of emissions measurement as required by the radioactive air emissions regulations or that a applicable permit(s) requires notification. This includes failure to calibrate stack or vent emissions measurement equipment in accordance with the required methods and standards.

Required measurement equipment is listed in the AOP, Attachment 2, as well as in recent NOC approvals not incorporated in the AOP.

Refer to HNF-PRO-450, "Air Quality - Radioactive Emissions", Appendix A, for definitions of 'emissions measurement' and 'periodic confirmatory measurement'.

Reference: Hanford Site Air Operating Permit.

E
No Notification
Required/Document
Assessment to File

F
Emissions
Pre-Approved
(permitted)?
Yes
No

G
Was Bypass or
Failure of
Abatement
Equipment
Avoided?
Yes
No

H
Were Emissions
Measured as
Required?
Yes
No

I
Unexpected
Operational
Change
Affecting
Emissions
Avoided?
Yes
No

J
Exceedance of
Emissions
Limits or
License
Requirements
Avoided?
Yes
No

K
Was Exceedance
of Dose or
Standards
Avoided?
Yes
No

L
Provide Notification to FH
Environmental Protection
Single Point of Contact

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CLOSE

A
Washington State
Department of Health
Notification Requirement

B
Routine Event?

Yes

No

C
Event Exempted?

Yes

No

D
Preplanned
& Approved?

Yes

No

I. Unexpected Operational Change Affecting Emissions Avoided?

The assessment of this question should consider whether a NONROUTINE AND/OR UNEXPECTED OPERATIONAL CHANGE AFFECTING EMISSIONS occurred.

This question is closely related to Step B but focuses on any upset conditions. It is most important while considering this question to keep in mind the intent of the notification requirement (i.e., to inform the WDOH of an actual or potential lack or loss of control of airborne radioactive material, over and above existing/known conditions).

It is especially important under this step to have developed facility-/location-specific criteria for qualitatively determining when something nonroutine or unexpected has occurred that affects the potential for emissions.

Reference: WAC 246-247-080(5) and Hanford Site Air Operating Permit, Section 4.5.

E
No Notification
Required/Document
Assessment to File

F
Emissions
Pre-Approved
(permitted)?

Yes

No

G
Was Bypass or
Failure of
Abatement
Equipment
Avoided?

Yes

No

H
Were Emissions
Measured as
Required?

Yes

No

I
Unexpected
Operational
Change
Affecting
Emissions
Avoided?

Yes

No

J
Exceedance of
Emissions
Limits or
License
Requirements
Avoided?

Yes

No

K
Was Exceedance
of Dose
Standards
Avoided?

Yes

No

L
Provide Notification to FH
Environmental Protection
Single Point of Contact

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J. Exceedance of Emissions Limits or License Requirements Avoided?

The assessment of this question should consider whether the condition, if allowed to persist, would cause an exceedance of emission limits. The assessment also should consider whether all approval conditions in the applicable regulatory order(s) (e.g., NOC, enforcement actions, or license) still would be met if the condition were allowed to persist.

In accordance with the Sitewide License (FF-01) issued by WDOH (to be replaced by the Hanford Site AOP upon its issuance), all standards listed in the WAC 246-247 must be met (WAC 246-247-040):

All measurement standards/requirements of NESHAPs (40 CFR 61, Subparts A and H)

The best available radionuclide control technology (BARCT) standard applicable to NESHAP major stacks ([potential-to-emit*] greater than 0.1 millirem per year TEDE).

All existing emission units must provide as low as reasonably achievable control technology (ALARACT) for ALARA emissions.

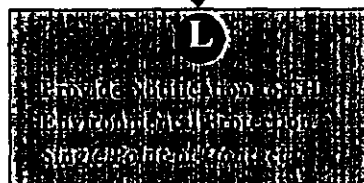
All emissions are subject to the standards. Therefore, even if the emissions are due to an exempted activity such as routine maintenance or repair, if ALARACT is not applied, that standard could be exceeded and notification would be required.

'Potential-to-emit' means the rate of release of radionuclides from an emission unit based on the actual or potential discharge of the effluent stream that would result if all abatement control equipment did not exist, but operations are otherwise normal [WAC 246-247-030(21)].

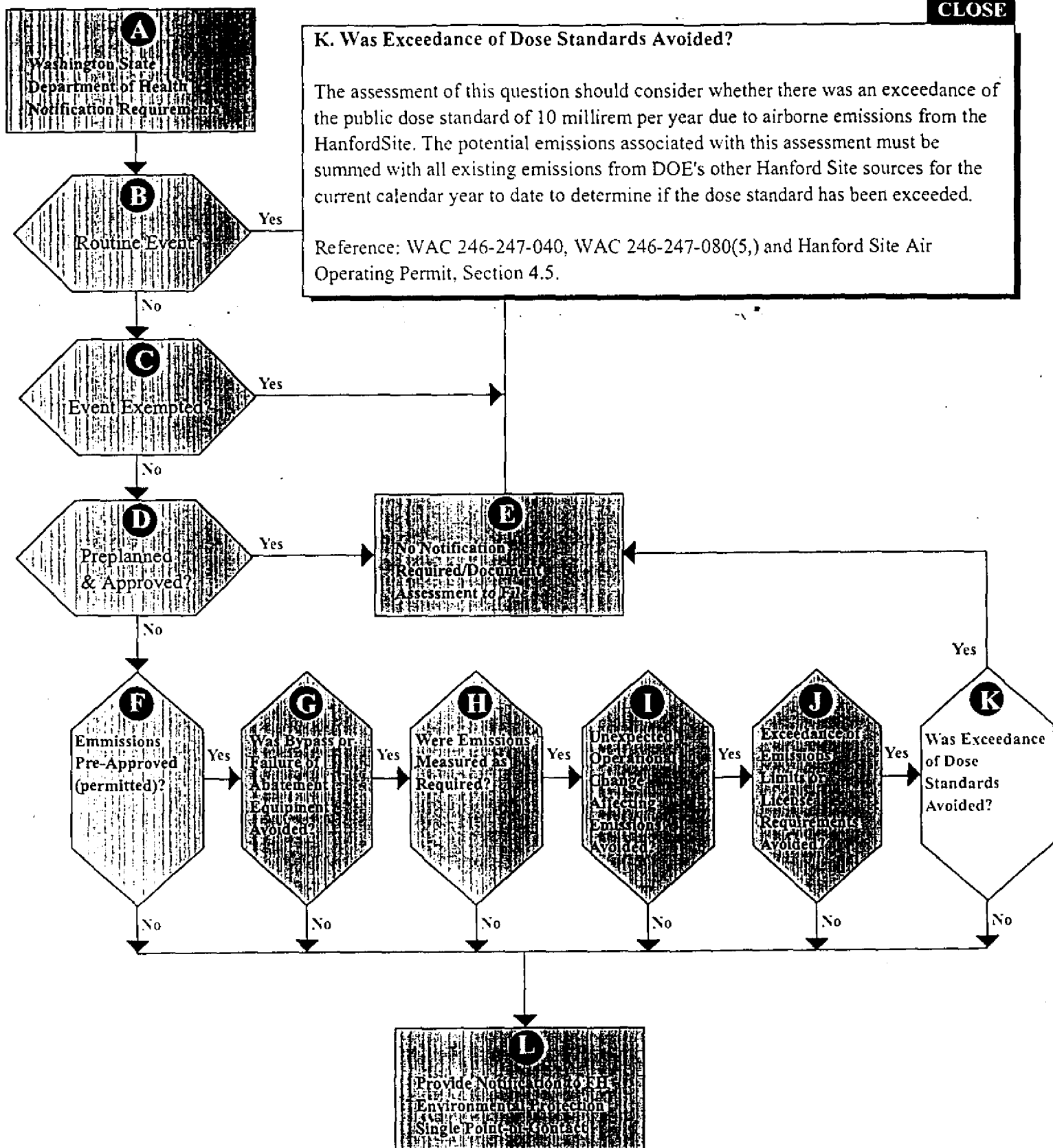
'As low as reasonably achievable control technology' (ALARACT) means the use of radionuclide emission control technology that achieves emission levels that are consistent with the philosophy of ALARA. ALARACT compliance is demonstrated by evaluating the existing control system and proposed nonsignificant modifications in relation to applicable technology standards and other control technologies operated successfully in similar applications. In no event shall application of ALARACT result in emissions of radionuclides that could cause exceedance of the applicable standards of WAC 246-247-040. Refer to the definition of ALARA. Note that ALARACT is equivalent to, but replaces, RACT in the May 7, 1986, version of chapter WAC 173-480 [WAC 246-247-030(4)].

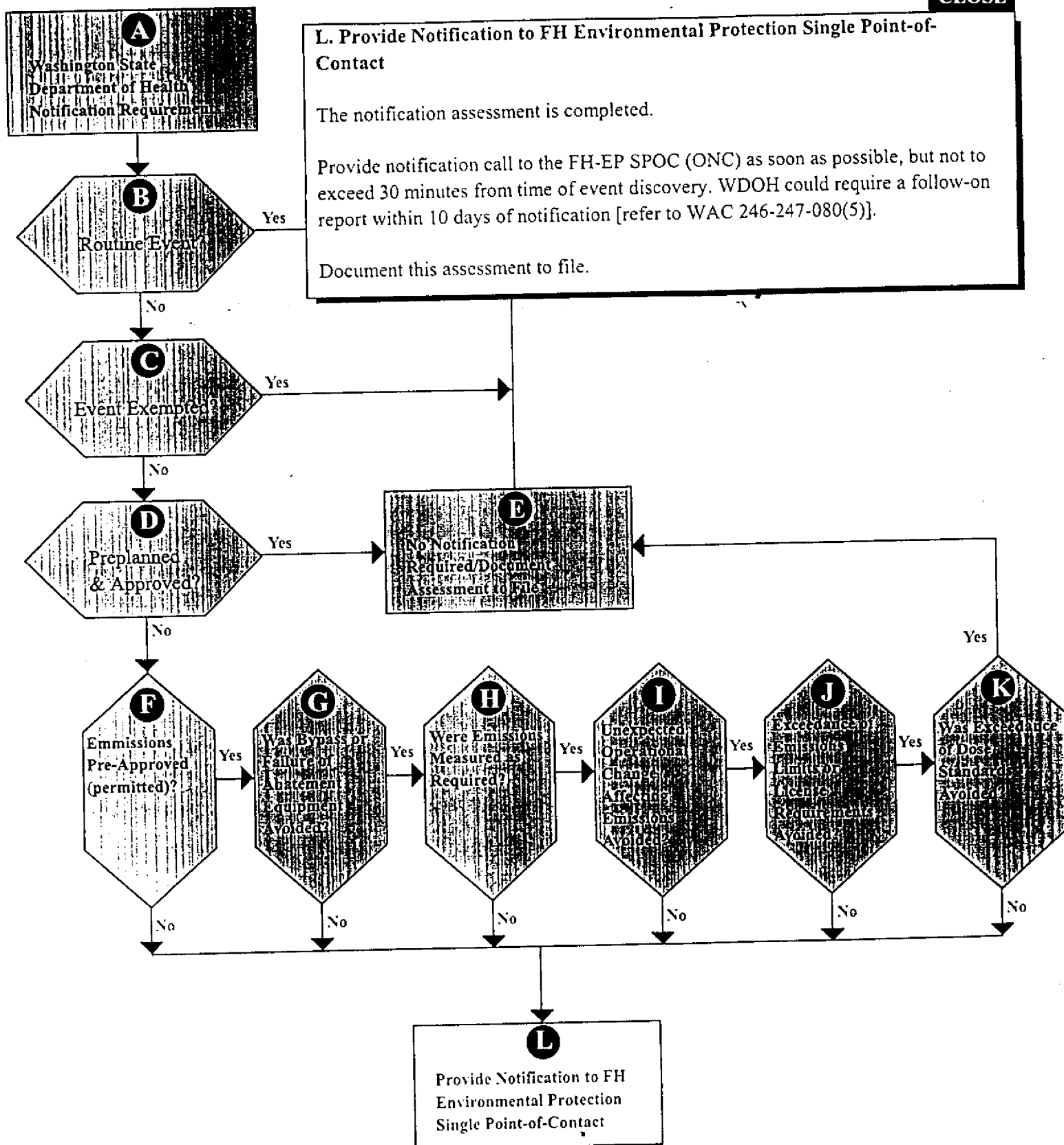
'ALARA' means as low as reasonably achievable, making every reasonable effort to maintain exposures to radiation as far below the dose standards as is practical, consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to the state of technology, the economics of improvements in relation to benefits to the public health and safety, and other socioeconomic considerations, and in relation to the use of nuclear energy, ionizing radiation, and radioactive materials in the public interest. Refer to WAC 246-220-007 [WAC 246-247-030(3)].

Reference: WAC 246-247-080(5), Hanford Site Air Operating Permit



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Enclosure 4
Work Package EL-03-00560

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Work Document EL-03-00560

10/30/2003 2:19 PM

Page 1 of 8

Document Number EL-03-00560 W GENERIC WORK ITEM
Work Item Title WESF - REPLACE STACK SAMPLER PROBE/LINE

Record Status ACT
Record Copy Printed Yes 1

Documents

Component Number FE-B10-1	Component Name FLOW ELEMENT/SAMPLE PROBE
Temporary Component Number 296-B10	Temporary Component Name STACK

Symptom, Problem, or Condition

1. REMOVAL AND INSPECTION ARE REQUIRED FOR NESHAPS AND WAC 246/247 REQUIREMENTS. THIS WILL ALLOW FOR THE REPAIR OF THE EXISTING SAMPLE PROBE.

Location

Facility	2C	System	C97
Building / Room	225BB		
Other	AREA		

Charge Code

CACN	COA
119427	CA10

Origination

Name	Davis, Scott J	Date	08/19/2003
Need Date		Phone	372-0473

Validation

Name	Crane, Al	Date	08/20/2003
Request Number	163249		

Phase Designator CY03 CALENDAR YEAR 2003
Priority 2 Priority Two

Resources Required

Mode TBD TO BE DETERMINED
Personnel Safety Rel. No
Correct. Maint. Assessment No
Plant Forces Work Review Required No
Plant Forces Work Review Number N/A

Code	Description	No	Est Hr	Act Hr
04	OPERATIONS PERSONNEL	2	18.0	5.0
22	ELECTRICIAN	2	18.0	5.5
24	PIPEFITTER	2	18.0	2.1
37	INSULATOR	1	9.0	5
54	RADIOLOGICAL CONTROL T	1	5.0	5.0

Cognizant Engineer

Davis, Scott J

Phone

372-0473

Reference Documents

Cognizant Manager

Pennock, Jan

Phone

373-7210

Type	Document
BOM	BILL OF MATERIAL
WPC	WASTE PLAN CHECKLIST
USQ	WESF-03-102
NEPA	B1.3 Screened 10/14/03
RWP	CAS-412
RWF	RAD SCREENING FORM

Tech. Spec. / OSR Requirements Reference

DEFENSE IN DEPTH INSTRUMENT/SYSTEM.
THE STACK PROBE IS IDENTIFIED IN THE DSA AS

Essential Systems

Code	Description
N/A	NOT APPLICABLE

Ref does (cont'd) 8/11-19-03
11-4-03 R103
11-3-03 R103
Data - Omega

10/31/03 P103 S.D.
RAM 03-01
RL-C00-005 Proc
Panel Board Schedule

Facility Group LPCS

Email B10 Sample Line, 10/16/03

Sample Line Leak Test Proc

Tube Fittings OVR

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11-15-03

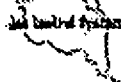
email NESHAP, 10/22/03

11-15-03

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Info 8/11-1903
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Work Document EL-03-00560

10/30/2003 2:19 PM

Page 2 of

Document Number	EL-03-00560 W GENERIC WORK ITEM	Record Status	ACT
Work Item Title	WESF - REPLACE STACK SAMPLER PROBE/LINE	Record Copy Printed	Yes 1

Resolution / Retest

1.0 SCOPE

- 1.1 The sample probe and sample line for the 296B-10 stack will be removed and replaced with a new sample probe and sample line.
- 1.2 The sample line, all fittings, clamps, heat trace, and insulation will be replaced.
- 1.3 The new sample line will be leak tested and a visual inspection will be performed.

2.0 PREREQUISITES

- 2.1 Pre-job safety meeting "IS" required. Document meeting held on WORK RECORD.
- 2.2 Ensure Job Hazard Analysis (AJHA) checklist is complete.
- 2.3 Ensure a Waste Planning Checklist (WPC) has been provided. (As required)
- 2.4 Notify WESF CCA and ECO of intent to start work. (372-0054)
- 2.5 Authorized/Affected worker tag(s) shall be hung as required.
- 2.6 Sections or steps within sections may be performed out of sequence as required for maintenance and plant conditions, provided required system isolation is in place for worker safety.
- 2.7 Two aerial lifts are available and ready for use.
- 2.8 Inspect sharp edge nozzles to ensure the external cone angle does not exceed 30 degrees.

Cone angle is acceptable.

OC [Signature]
Signature

TR Dykeman
Print Name

Date 10/31/03

- 2.9 Perform visual inspection of the sample probe checking for deposit or potential degrading factors and document the results.

No deposit or degrading factors and inspection documented.

Facility Group LPCS

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10/30/2003 2:19 PM

Work Document EL-03-00560

10/30/2003 2:19 PM

Page 3 of

Document Number	EL-03-00560	W	GENERIC WORK ITEM	Record Status	ACT
Work Item Title	WESF - REPLACE STACK SAMPLER PROBE/LINE			Record Copy Printed	Yes 1

QC *[Signature]*
Signature

Rg Dykeman
Print Name

Date *10/31/03*

COMMENTS:

2.10 Install 1/2" Swagelok caps on the static and impact fittings for the flow elements.

3.0 SPECIFIC WORK INSTRUCTIONS

3.1 Turn off circuit breaker A-5 to shut down power to the sample line heat trace. Panel is located in the lower left side of the sample cabinet. Install lock and tag on breaker.

3.2 Disconnect the heat trace from the controller.

3.3 Remove the lock and tag from breaker A-5, DO NOT turn the breaker on.

3.4 Remove the insulation from the sample line. Survey insulation and dispose of per the Waste Planning Checklist.

3.5 Remove the heat trace from the sample line. Survey heat trace and dispose of per the Waste Planning Checklist.

NOTE: When the STACK CAM is shut down a system failure alarm will activate and remain activated until the CAM is restored to service.

3.6 Request Radcon to change the Sample Filter Paper per RC-C00-005.

3.7 Power down the CAM.

CAUTION: Sample system down time should not exceed 120 hours. Notify WESF operations if time limit is exceeded.

3.8 Turn off the vacuum pumps for the CAM and the record sample lines. (No L&T required)

NOTE: Surveys will be required for removable contamination on all sample line components.

3.9 Remove the sample line, in sections, starting at the top fitting near the sample probe. Number the tubing

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Work Document EL-03-00560

10/30/2003 2:19 PM

Page 4 of 8

Document Number	EL-03-00560 W GENERIC WORK ITEM	Record Status	ACT
Work Item Title	WESF - REPLACE STACK SAMPLER PROBE/LINE	Record Copy Printed	Yes 1

sections as they are removed, place number at the end of the tubing nearest the sample probe.

3.9.1 Perform removable contamination surveys during the removal of all sample line and sample probe assembly to ensure there is no loss of contamination control.

3.9.2 Seal each section as it is disconnected with Swagelok cap.

3.9.3 Move sections to RMA in 225B truck port. Lines will be cut into smaller section for shipment to lab, see Section 4.0.

3.10 Install plastic sleeve around the sample probe.

3.11 Remove sample probe from the stack and seal in plastic sleeve. Move to RMA in 225B truck port for further disassembly (See Section 4.0).

3.12 Remove the two sections of 1/2" tubing for the flow element. Two extension pieces were added to the flow element lines to reach the new sample probe level. These two extensions will be removed and caps installed on the old lines.

3.13 Remove the sample line splitter from the cabinet.

3.14 Clean the splitter.

3.15 Reinstall the cleaned splitter in the cabinet. Seal around fitting at top of cabinet with silicone sealer.

3.16 Install new sample probe assembly in stack. RTV all gaskets to assure tight seal.

3.17 Remove flange adjacent to the sample probe and inspect the probe knife edges for damage, deposits, and proper orientation of sample probe.

Knife edges are free from damage or deposits.

QC [Signature] TRG DYKEMAN Date 11/4/03
Signature Print Name

Sample probe nozzles are aligned properly, within 10 degrees of vertical.

QC [Signature] TRG DYKEMAN Date 11/4/03
Signature Print Name

NOTE: The two 1/2" lines for the stack flow will not be connected.

3.18 Install sample line, new tubing clamps are provided. Test all Swagelok fittings with a Gap Inspection

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Work Document EL-03-00560

10/30/2003 2:19 PM
Page 5 of

Document Number	EL-03-00560 W GENERIC WORK ITEM	Record Status	ACT
Work Item Title	WESF - REPLACE STACK SAMPLER PROBE/LINE	Record Copy Printed	Yes 1

Gauge to ensure proper pull up. Thread lock compound must be used on all sample line fittings.

3.19 Perform leak test of new sample line per the following test Procedure.

PROCEDURE:

Reference Figures 1 and 2 as needed. (See supplemental document section)

1. Verify P-1 and FI-1 have current calibration. Record calibration data below:

Omega Mass Flow Meter	Cal Id #	Cal Due Date
Model # FMA-A2309	<i>X</i>	<i>X</i>
Serial # 6739 <i>7/11/03</i>		

Dwyer Vacuum Gauge	Cal ID #	Cal Due Date
Model # 2030 <i>8/11/03</i>	<i>X</i>	<i>X</i>
Serial # 12030710AGF93		

** See vendor calibration date attached*

2. Verify the vacuum pumps for the CAM and the record sample lines are OFF. (No L&T required)
3. Disconnect the sample line at the flange located near the stack probe and plug using a pipe plug or cap.
4. Disconnect the CAM sample line downstream of the splitter and plug with either a cap or plug.
5. Disconnect the sample line, downstream of the Record Sample Holder, and connect the inlet hose of the Testing Device. Allow the pump to exhaust to atmosphere.
6. Connect the Test Device power strip to a 110 VAC supply.
7. Open Test Device valve V-1 and close valve V-2.
8. Start Test Device Pump P-1, AND tighten any leaks.
9. Observe test device vacuum gage PI-1. When the sample line negative pressure approaches 15 inches water fully open V- 2 and adjust V-1 until a stable indication of 15 inches water is observed. Partially close V-2 needed to maintain 15 inches of water as shown on PI-1.
10. Observe and record indication on Flow Indicator FI-1: 0.57 SLPM
If indication is greater than 4.25 SLPM (0.15 SCFM), stop work and contact engineering for further direction. If indication is equal to, or less than, 4.25 SLPM, test is satisfactory - continue to Step 12.

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Work Document EL-03-00560

10/30/2003 2:19 PM
Page 6 of 8

Document Number EL-03-00560 W GENERIC WORK ITEM
Work Item Title WESF - REPLACE STACK SAMPLER PROBE/LINE

Record Status ACT
Record Copy Printed Yes 1

11. Turn off vacuum pump, disconnect power.
12. Restore system to original configuration retaining the new sample paper intact by disconnecting the test device, removing caps/plugs, and re-connect all sample lines, and return sample line to original configuration.

Leak Test Acceptable

ENG Paul T. Saueressig for Scott Davis Date 11/4/03
Signature

Scott Davis per telephone Paul T. Saueressig
Print Name

- 3.20 Reconnect sample line to sample probe assembly. Test all Swagelok fittings with a Gap Inspection Gauge to ensure proper pull up. Thread lock compound must be used on all sample line fittings.
- 3.21 Install heat trace. Lock out circuit A-5 in sampler cabinet to make connection.
- 3.22 Install insulation on sample line.

4.0 RESTORATION ACTIONS

- 4.1 Re-energize the heat trace and verify that the heat trace is operable.
- 4.2 Return the CAM and record sample systems to normal operation.
- 4.3 Perform ultrasonic leak test of sample probe fitting. Tighten fitting if leak is detected, then retest fitting.

ENG [Signature] Date 11/5/03
Signature

Larry L. Dunn
Print Name

- 4.4 Operate CAM for approximately one hour prior to changing out the sample paper.
- 4.5 Request Radcon to change the Sample Filter Paper per RC-C00-005.
- 4.6 Notify WESF operations and ECO that the Stack sampler system is operational.

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Work Document EL-03-00560

10/30/2003 2:19 PM

Page 7 of 8

Document Number	EL-03-00560 W GENERIC WORK ITEM	Record Status	ACT
Work Item Title	WESF - REPLACE STACK SAMPLER PROBE/LINE	Record Copy Printed	Yes 1

4.6 Notify WESF operations and ECO that the Stack sampler system is operational.

4.7 Set-up the WESF truckport for cutting the sample line and probe and repackaging for shipping to the Labs. Perform direct and removable surveys of all sample line pieces and sample probe pieces.

4.8 Cut old sample line and probe sections into 24" pieces using a tubing cutter. Install plastic tubing caps on ends of tubing. Then number and package for shipping.

NOTE: Sleeve each 24" piece in plastic and seal end for shipment to lab.

4.9 Ship sample line sections to 222S lab for analysis..

Planning Codes

Planning Required Yes

Code	Description
------	-------------

Resolution By

Approval	Date
<i>Kathy Burton</i>	10/31/03

Screener / Operations Review

Approval	Date
Crane, AI [Approved]	08/20/2003

Approvals

Code	Description	Approval	Date
CE	Cognizant Engineer	Davis, Scott J [Approved]	10/14/2003
CM	Cognizant Manager	Pennock, Jan [Approved]	10/21/2003
E	Environmental	Simmons, Fen M [Approved]	10/21/2003
PIC	Person In Charge	Nunn, Larry L [Approved]	10/28/2003
Q	Quality Assurance	Dykeman, Randy G [Approved]	10/21/2003
R	Radiation Protection	Higbee, Mark D [Approved]	10/23/2003
S	Safety & Health	Wight, Ronald H [Approved]	10/21/2003

Pre-Work Review

Approval	Date
Burton, Kathy [Approved]	10/29/2003

Lock and Tag

Number	Location
N/A	AW LOTO authorized

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Work Document EL-03-00560

10/30/2003 2:19 PM

Page 8 of 8

Document Number EL-03-00560 W GENERIC WORK ITEM
Work Item Title WESF - REPLACE STACK SAMPLER PROBE/LINE

Record Status ACT
Record Copy Printed Yes 1

Person In Charge

Name Nunn, Larry L
Organization MAINT MAINTENANCE

Calibration Standards

Standard	Exp Date	Tolerance
N/A		

Work Release Release Type

Approval <i>[Signature]</i>	Date 10/31/03
-----------------------------	---------------

Work Suspension (See Work Suspension Sheet)

PIC N/A	Date
---------	------

Field Work Complete

Approval <i>[Signature]</i>	Date 11/13/03
-----------------------------	---------------

Reactor Containment Integrity No

Operations Acceptance

Approval K Burton	Date 11/13/03
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Post Work Review

Approval <i>[Signature]</i>	Date 11-19-03
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Failure Information

Component Number	Failure Class	Failure Code	Ident. Method	As Found	Action Taken
Failure Comments N/A					

Failure Comments

Facility Group LPCS

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Skill-Based Work Review

PM/S Number(s):

Skill Based Work? Yes / No (Circle one)

Craft(s) - See definition below and sign/date for concurrence.

Signature/Date: John J. Wilson , 10-31-03

Signature/Date: Jo King 110-31-03

Signature/Date: _____ / _____

Skill-Based Work Definition from HNF-PRO-079, Rev. 6:

The level of work that can be safely performed using a worker's existing proficiency/skill, job position training, and experience without the need for additional hazard analysis based on enhanced work planning, written work instructions, and direct supervision. Such work is typically routine, low risk, low hazard activity. The hazards have been identified in the EJTA and the training necessary to mitigate these hazards is outlined in the individual or position training matrix.

JCS WORK RECORD

1. Document Number:

EL-03-00560/n

2. Work Item Title:

Replace Stack Sampler Probe/Line

Date	Turnover, Problem Description, Action Taken	Name	Craft/Resource Type	Hour
10/31/03	Pre-Job Meeting	Tom	22	1
10/31/03	Removed approx. 60 FT 1 1/2 rubber insulation as needed... on stack	2. Phil Joe Ray	22 37	5
10/31/03	Disconnected duct type	Tom	22	1
11/3/03	REVISION 2 ISSUED FOR RWP CAS-412	Steve Lewis	RC	
11/3/03	Pre-job safety meeting			
11/5/03	Sonic tested if sample probe. No evidence of leaks	Tom	24 FWS	2
11/5/03	Replaced Hot Trace	Tom	22	4
11/6/03	RedCon replaced sample paper per step 4.5. Stack sampling system returned to service as per step 4.6	K. Burton	CCA	
11/13/03	Post Maintenance Review Complete	Tom	FWS	
11-10-03	Gate Entry - Cal. Check performed on 3 points to verify GAUGE OPERABILITY Acceptable.	DAVIS	Quig	
11-19-03	Completed Post Review	J. Hager	all	

Summary by Craft/Resource Type

Craft/Resource Type	Total Hours	Craft/Resource Type	Total Hours

WASTE PLANNING CHECKLIST

☐ Generic

A. WORK PACKAGE PREPARER COMPLETES	YES	NO	COMMENTS
1. Will waste be generated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If NO, checklist is complete. Sign checklist
2. Will waste be generated in a radiological buffer area or contamination area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If NO, Go to question A.6.
3. Will waste be generated in a process area?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Will process equipment be removed?	<input type="checkbox"/>	<input type="checkbox"/>	
5. Will the disposed waste come in contact with radioactive process waste?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Will there be any aerosol can(s) disposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Will HEPA filters be disposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. Will asbestos waste be generated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Will paint waste be generated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Will chemicals / hazardous products be generated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If YES, Go to (a) and complete.

(a) List "ALL" MSDS numbers and their product names:

MSDS No.	Chemical or Product Name	MSDS No.	Chemical or Product Name

11. General description of the waste:

60' of Armaflex insulation 1"ID x 1"thick, 60' of self regulating heat trace, 6-3/4" pipe clamps. (SAMPLE LINE WILL BE CUT UP AND SENT TO LAB FOR ANALYSIS THEY WILL DISPOSE)

Estimate quantity of waste that will be generated: _____ gal / lbs. [circle one] _____ per day / week [circle one]

Estimate length of job: _____ day(s) / week(s) [circle one]

Work Package No.: EL-03-00560 / W

Planned Start Date: 10/31/2003

Preparer's Name: CHUCK CLEMMONS

Phone No.: 372-0100

REPLACE STACK SAMPLE LINE

296B-10/C97

Work Description

(Bldg. No., System, Tank No., Room No.)

B. HAZARDOUS WASTE COORDINATOR REPRESENTATIVE COMPLETES	YES	NO	COMMENTS
1. Is waste regulated as a dangerous waste?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Disposition Instruction: Dispose of waste in regular trash.			
3. The following waste minimization techniques will be used: Minimize waste generation.			
4. Facility Operations has been notified to take samples? (N/A, if not required)	<input type="checkbox"/>	<input type="checkbox"/>	N/A
5. Is a container already available for each disposition in B.2?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Does the quantity of waste in A.11 exceed capacity of the available container(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Identify satellite accumulation area (SAA) or accumulation area container(s) locations: N/A			

Prepared By: (Signature) SR Wetherell

Organization: Operations

SR Wetherell

Operations Specialist

(Title)

Review Date: 10/30/2003

Expiration Date: _____
(Generic)

RWP Status: [REDACTED]

HANFORD RADIOLOGICAL WORK PERMIT				Contractor: WASTE MANAGEMENT		PROJECT	
<input type="radio"/> General <input checked="" type="radio"/> Job Specific		Tech. Doc. No. EL-03-00560		Location Code 3		RWP Number CAS-412 Revision - 002	
Start Date 11/03/2003		End Date 12/31/2003		Responsible Organization LPCS OPERATIONS			
Job Location 200E/225B							
Job Description and Type of Area: Disassemble, size and package the 296B-10 effluent sample line and perform directly related support activities (CA).							
Primary Isotopes(s): <input checked="" type="checkbox"/> MFP <input type="checkbox"/> MAP <input checked="" type="checkbox"/> Cs <input checked="" type="checkbox"/> Sr <input type="checkbox"/> H-3 <input type="checkbox"/> U <input type="checkbox"/> Pu <input type="checkbox"/> Other							
Radiation Emitted: <input type="checkbox"/> Alpha <input checked="" type="checkbox"/> Beta <input checked="" type="checkbox"/> Photons <input type="checkbox"/> Neutrons		Estimated Dose Rates General Area: <0.5 mrem/h Maximum Contact: 2 mrem/h		Contamination Levels Beta-gamma: 50,000 dpm/100 cm ² Alpha: N/A dpm/100 cm ²		Radiological Worker Training Req. I II X	
Internal Dosimetry Requirements (for routine work under this RWP, except those entering for observation only) <input checked="" type="checkbox"/> Annual Whole Body Count <input type="checkbox"/> Lung Count <input type="checkbox"/> Urinalysis Isotopes to Test for (if any)							
MINIMUM RADIOLOGICAL PROTECTION REQUIREMENTS				SPECIAL INSTRUCTIONS (SI)			
HPT Coverage:		Dosimetry		1. One set of cloth Anti-C clothing is required. Multiple pair of surgeon's gloves may be worn in lieu of canvas gloves for dexterity reasons. Leather gloves may be worn in lieu of canvas gloves for industrial safety reasons. 2. Limiting Radiological Conditions: - General area removable beta-gamma contamination in excess of 100,000 dpm/100cm ² - Whole body deep dose rates in excess of 5 mrem/hr If any of the above limiting conditions are exceeded, stop work, secure the work area in a safe configuration, and notify Radiological Control Supervision/Management for direction.			
<input checked="" type="checkbox"/>	Continuous	<input checked="" type="checkbox"/>	HSD - TLD				
	Intermittent		HCND - TLD				
	Start of Job		Pocket Dosimeter				
	End of Job		Electronic Dosimeter				
	Self Survey (if qualified)		Finger Rings				
<input checked="" type="checkbox"/>	HPT Survey Required		Time Keeping				
<input checked="" type="checkbox"/>	Auto. Survey Device	<input checked="" type="checkbox"/>	Entry Control System				
	See SI#		PNAD				
MINIMUM PROTECTIVE EQUIPMENT							
SI#1	Coveralls		Shoe Covers				
	Lab Coat	SI#1	Canvas Boots				
	Waterproof Suit	SI#1	Rubber Overshoes				
	Gortex Suit		Rubber Boots				
	Cap		Full Face Respirator				
SI#1	Hood		PAPR				
	Surgeon's Gloves		Supplied Air Respirator				
SI#1	Leather Gloves		SCBA				
SI#1	Canvas and Surgeon's Gloves		Undressing Assistance				
	Waterproof Gloves		Air Sampling Required				
	No Personal Outer		ARM Required				
<input checked="" type="checkbox"/>	Modesty Clothing						
	See SI#		See SI#				
ALARA Review: <input checked="" type="checkbox"/> Yes		Pre-Job Briefing: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		Post-Job ALARA Review Required: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
RWP Prepared By: Lewis, Steve		Phone: (509) 373-1075		HPT Phone: 372-0121 or PAX: N/A			
Line Mgt.: Print: Saueressig, Paul T		Phone: (509) 372-0071		Date 11/3/03			
Sign: <i>Paul T Saueressig</i>							
RC Mgt.: Print: Lewis, Steve		Phone: (509) 373-1075		Date 11/3/03			
Sign: <i>Steve Lewis</i>							
		Phone:		Date			
Acknowledged By:				Date			
RWP Change Approvals:				Date			

RADIOLOGICAL WORK ACTIVITY SCREENING FORM

Sheet 1 of 2

Radiological Work Activity Screening

Technical No.: EL-03-00560	Technical Work Document Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated Work Start Date: 10/20/2003
Job Supervisor/PIC: LL Nunn	Organization: LPCS Operations	Phone No: 372-0171
Facility: WESF	Bldg./Room/Work Location: 225B	Work Sponsor: SS Lewis

Type of Work			Work Location Posting		Job Description		Type of Work Station			
X	Routine	(1)	RBA	(1) (exposure)		Non-Rad Maint./Activity	(0)	Non-Rad System	(0)	
	Ship/Receive	(6)	FCA	(5)	X	Cutting	(6)	X	Outdoor	(5)
	Construction	(5)	RMA	(5)		Grinding	(6)		Other	(6)
	Skill of the Craft	(6)	URMA	(9)		Welding	(6)		Bench Top	(6)
	First Time/Infrequent	(11)	RBA	(10) (contamination control)		Other Rad Activity	(6)		Open Faced Hood	(11)
	Changing Rad Cond.	(11)	X	CA	(10)	Rad Maintenance	(6)		Containment	(11)
	Rad Unknown	(25)		RA	(10)	Sampling	(6)			
				ARA	(25)	Repackaging/Overpack	(11)			
				HRA	(25)	Excavation	(11)			
				VHRA	(25)	Open Contam. Sys.	(11)			
				HCA	(25)					
1	Initial Evaluation Factor	10	Initial Evaluation Factor	6	Initial Evaluation Factor	6	Initial Evaluation Factor	6	Initial Evaluation Factor	

TOTAL INITIAL EVALUATION FACTOR: 0 - 10

Review RWP(s): Yes

23 TOTAL INITIAL EVALUATION FACTOR: ≥ 11

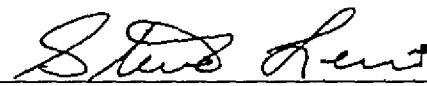
RADCON REVIEW REQUIRED

TOTAL INITIAL EVALUATION FACTOR: 23

SCOPE OF WORK:

Replace stack sampler probe/line in accordance with Work Package EL-03-00560.

Work Sponsor Signature: SS Lewis



Date: 10/17/2003

JOB BREAKDOWN

Component Tasks	Group/Craft	Est. Hours	No (A)	(RADCON Use Only) Est. Hours (B)	(RADCON Use Only) Dose Equiv. Rate (mrem/hr) Estimate (C)	(RADCON Use Only) Collective Dose Equiv. (person-mrem) (AxBxC)
1. Replace Stack sample line	Maint.	20	4	80	<0.5	0
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						

Total Estimated Collective Dose Equiv. (person-mrem) **0**

person - rem = person mrem / 1000 = **0**

RADIOLOGICAL WORK ACTIVITY SCREENING FORM

Sheet 2 of 2

RADIOLOGICAL CONDITIONS (RADCON USE ONLY)

	ANTICIPATED
GENERAL AREA Whole Body Dose Rate	<0.5 mrem/h
REMOVABLE CONTAMINATION (Beta - Gamma)	50,000 dpm/100 cm
REMOVABLE CONTAMINATION (Alpha)	<20 dpm/100 cm
AIRBORNE RADIOACTIVITY > 10% DAC <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, provide concentration level	μCi/m

RADCON USE ONLY

Actual Risk Level Screened as: ☒ Low risk ☐ Medium risk ☐ High risk

Are RadCon Hold Points Included? ☐ Yes ☒ No

In-Process Review Required? ☐ Yes ☒ No

Prepared By: Steve Hunt

Date: 10/17/03

Cycle Review: _____

Date: _____

Assigned RWP No.: CAS-412 Rev: Current

AMW Required: ☐ Yes ☒ No

Specialized Radiological Worker Training (SRWT) Required? ☐ Yes ☒ No

If Yes, what type of SRWT will be conducted?

☐ Lecture/Conference

☐ Mock-Up Training

☐ Hands-On Training

☐ Procedure/Work Document Review

☐ Other _____

Is Estimated Collective Dose ≥ 200 person-mrem? ☐ Yes ☒ No

If Yes, was job dose tracking considered? ☐ Yes ☐ No

Comments:

None.

FH PRE-JOB BRIEFING CHECKLIST

Work Document No.: <u>EL-03-00560/m</u>	FWS/PIC: <u>PT Saueressig</u>	Date: <u>11/04/03</u>
Task Description: <u>WSEF: Replace Stack Sampler Probe</u>		
TOPICS FOR DISCUSSION		
<p>NOTE: A graded approach may be used during the conduct of pre-job briefings. The level of detail discussed will be at the discretion of the person conducting the pre-job briefing and the attendees. Refer to HNF-GD-14047 for guidance on conducting pre-job briefings. Pre-job briefings should be held prior to the conduct of work anticipated to exceed the trigger levels of HNF-5173, Article 312.3. Retain completed form in the Work Package.</p>		
<p>PRE-JOB BRIEFING AGENDA:</p> <p><input checked="" type="checkbox"/> Verify personnel involved are present: (Craft, Radcon, Engineering, QC, Operations, Environmental, other)</p> <p><input checked="" type="checkbox"/> First Aid Provider Available for Support: <u>Lots (PIS, GLG, etc.)</u></p>		
<p>DESCRIBE SCOPE OF WORK TO BE PERFORMED:</p> <p><input checked="" type="checkbox"/> Briefly describe scope of work or planned work for shift/job (use sketches, floor plan, etc.)</p> <p><input checked="" type="checkbox"/> Discuss job assignments</p> <p><input checked="" type="checkbox"/> Procedure type and compliance expectations</p> <p><input checked="" type="checkbox"/> Key parts of Work Instructions/procedure</p> <ul style="list-style-type: none"> <input type="checkbox"/> Precautions/Limitations <input type="checkbox"/> Work document radiological requirements <input type="checkbox"/> Lock and Tag requirements <input type="checkbox"/> Critical Lifts <input type="checkbox"/> Hold Points and recover actions in the event of a missed hold point (per HNF-PRO-5432) <input type="checkbox"/> Applicable Technical Safety Requirements (TSR)/Limited Condition of Operations (LOC) including time clocks, how work impacts equipment operability and what is required to restore operability <input type="checkbox"/> Post system/component testing requirements <p><input checked="" type="checkbox"/> Material needed for the job including special tools, Personal Protective Equipment (PPE), special containments, engineered controls, HEPA vacuums, respiratory protection, special dosimetry, etc. Ensure items are available, inspected, staged and ready for use.</p> <p><input checked="" type="checkbox"/> Coordination with other groups and other plant activities that might affect persons during job (alarm/horn testing, drills, etc.)</p>		
<p>DISCUSS AJHA (HAZARDS AND CONTROLS):</p> <p><input checked="" type="checkbox"/> Permits (EEWP, Fall Protection Plan, Hot Work, etc.)</p> <p><input checked="" type="checkbox"/> Flow path of work with regard to identified hazards</p> <p><input type="checkbox"/> MSDS for chemicals being used</p> <p><input type="checkbox"/> Environmental permits and conditions</p> <p><input type="checkbox"/> Industrial Hygiene requirements</p> <p><input type="checkbox"/> Waste minimization and disposal requirements (if employed, must document on work record)</p>		
<p>RADIOLOGICAL SAFETY:</p> <p><input checked="" type="checkbox"/> Radiological Work Permit (RWP)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Special Radiological Requirements, engineered controls (ventilation, containments, drapes, etc.) <input type="checkbox"/> ALARA - ALARA Management Worksheet (AMW) controls, temporary shielding use, radiological postings and low dose standby areas (as applicable) <input type="checkbox"/> PPE - (use of extra pair of radiological gloves, changing the outer pair, or frisking after handling contaminated equipment) <input type="checkbox"/> Frequent contamination checks or glove changes when working in an HCA <input type="checkbox"/> For HCAs with high background, remove the outer layer of anti-Cs at the first step-off pad and go to a low background for survey <input type="checkbox"/> Surveys required in areas "not routinely surveyed" <input type="checkbox"/> Planned or special monitoring or sampling requirements <input type="checkbox"/> Action Levels and void limits <input type="checkbox"/> Temporarily suspending work and requiring decontamination prior to resuming work <input type="checkbox"/> Pressure wash, bag or cover, or misting items being removed from the Basin to minimize airborne material <input type="checkbox"/> Use of drapes or catches for breaches of potentially contaminated systems <input type="checkbox"/> Layered, removable flooring that can be removed when contamination levels get high <input type="checkbox"/> "Bull-Pens" or walls along the border of the work area to mitigate the spread of contamination <input type="checkbox"/> Air space boundaries (PFP - reference ZSP-006) <p><input checked="" type="checkbox"/> Emergency Response</p> <ul style="list-style-type: none"> <input type="checkbox"/> Alarm Response Actions <input type="checkbox"/> Emergency communications systems 		
<p>GENERAL DISCUSSION:</p> <p><input checked="" type="checkbox"/> Start of work time, breaks, and stopping points</p> <p><input checked="" type="checkbox"/> Work area conditions (weather, lighting, temperature, radiological conditions, accessibility, protection of work from outside interference, etc.)</p> <p><input checked="" type="checkbox"/> Response to abnormal conditions/situations, contingency plans and emergency actions, abort criteria</p> <p><input checked="" type="checkbox"/> Casualty response actions (e.g., secure and notify management before proceeding)</p> <p><input checked="" type="checkbox"/> STOP WORK AUTHORITY</p> <p><input checked="" type="checkbox"/> STAR Philosophy (Stop, Think, Act, Review)</p> <p><input checked="" type="checkbox"/> PFP Specific: Possible error precursors and flawed defenses (see precursor card). Determine whether additional defenses (i.e., self or peer verification are warranted).</p> <p><input checked="" type="checkbox"/> Applicable Criticality Posting Specification (CPS) and postings CPS No. <u>N/A</u></p> <p><input checked="" type="checkbox"/> Housekeeping learned from previous tasks</p>		
<p>LESSONS LEARNED:</p> <p><input checked="" type="checkbox"/> Lessons learned from previous tasks <u>Odor, fittings</u></p>		
<p>QUESTIONS OR CONCERNS: - Ask one final question: "Is everyone comfortable with the job and his/her part in it?"</p>		

H PRE-JOB BRIEFING CHECKLIST

Work Document No.: EL-03-00560/M FWS/PIC: PT Saveress Date: 11/02/03

Task Description: WBF: Replace Hook Sampler Probe / Line

TOPICS FOR DISCUSSION

NOTE: A graded approach may be used during the conduct of pre-job briefings. The level of detail discussed will be at the discretion of the person conducting the pre-job briefing and the attendees. Refer to HNF-GD-14047 for guidance on conducting pre-job briefings. Pre-job briefings should be held prior to the conduct of work anticipated to exceed the trigger levels of HNF-5173, Article 312.3. Retain completed form in the Work Package.

PRE-JOB BRIEFING AGENDA:

- ☒ Verify personnel involved are present: (Craft, Radcon, Engineering, QC, Operations, Environmental, other)
- ☒ First Aid Provider Available for Support: Lots (PTs, Gals)

DESCRIBE SCOPE OF WORK TO BE PERFORMED:

- ☒ Briefly describe scope of work or planned work for shift/job (use sketches, floor plan, etc.)
- ☒ Discuss job assignments
- ☒ Procedure type and compliance expectations
- ☒ Key parts of Work Instructions/procedure
 - ☐ Precautions/Limitations
 - ☐ Work document radiological requirements
 - ☐ Lock and Tag requirements
 - ☐ Critical Lifts
 - ☐ Hold Points and recover actions in the event of a missed hold point (per HNF-PRO-5432)
 - ☐ Applicable Technical Safety Requirements (TSR)/Limited Condition of Operations (LOC) including time clocks, how work impacts equipment operability and what is required to restore operability
 - ☐ Post system/component testing requirements
- ☒ Material needed for the job including special tools, Personal Protective Equipment (PPE), special containments, engineered controls, HEPA vacuums, respiratory protection, special dosimetry, etc. Ensure items are available, inspected, staged and ready for use.
- ☒ Coordination with other groups and other plant activities that might affect persons during job (alarm/horn testing, drills, etc.)

DISCUSS AJHA (HAZARDS AND CONTROLS):

- ☒ Permits (EEWP, Fall Protection Plan, Hot Work, etc.) RWP CAS 300 / CAS 412
- ☒ Flow path of work with regard to identified hazards ATM LST
- ☐ MSDS for chemicals being used
- ☐ Environmental permits and conditions
- ☐ Industrial Hygiene requirements
- ☐ Waste minimization and disposal requirements (if employed, must document on work record)

RADIOLOGICAL SAFETY:

- ☒ Radiological Work Permit (RWP)
 - ☐ Special Radiological Requirements, engineered controls (ventilation, containments, drapes, etc.)
 - ☐ ALARA - ALARA Management Worksheet (AMW) controls, temporary shielding use, radiological postings and low dose standby areas (as applicable)
 - ☐ PPE - (use of extra layers of surgical gloves, changing the outer pair, or frisking after handling contaminated equipment)
 - ☐ Frequent contamination checks or glove changes when working in an HCA
 - ☐ For HCAs with high background, remove the outer layer of anti-Cs at the first step-off pad and go to a low background for survey
 - ☐ Surveys required in areas "not routinely surveyed"
 - ☐ Planned or special monitoring or sampling requirements
 - ☐ Action Levels and void limits
 - ☐ Temporarily suspending work and requiring decontamination prior to resuming work
 - ☐ Pressure wash, bag or cover, or misting items being removed from the Basin to minimize airborne material
 - ☐ Use of drapes or catches for breaches of potentially contaminated systems
 - ☐ Layered, removable flooring that can be removed when contamination levels get high
 - ☐ "Bull-Pens" or walls along the border of the work area to mitigate the spread of contamination
 - ☐ Air space boundaries (PFP - reference ZSP-006)
- ☒ Emergency Response
 - ☐ Alarm Response Actions
 - ☐ Emergency communications systems

GENERAL DISCUSSION:

- ☒ Start of work time, breaks, and stopping points
- ☒ Work area conditions (weather, lighting, temperature, radiological conditions, accessibility, protection of work from outside interference, etc.)
- ☒ Response to abnormal conditions/situations, contingency plans and emergency actions, abort criteria
- ☒ Casualty response actions (e.g., secure and notify management before proceeding)
- ☒ STOP WORK AUTHORITY
- ☒ STAR Philosophy (Stop, Think, Act, Review)
- ☒ PFP Specific: Possible error precursors and flawed defenses (see precursor card). Determine whether additional defenses (i.e., self or peer verification are warranted).
- ☒ Applicable Criticality Posting Specification (CPS) and postings CPS No. 112
- ☒ Housekeeping learned from previous tasks

LESSONS LEARNED:

- ☒ Lessons learned from previous tasks

QUESTIONS OR CONCERNS: - Ask one final question: "Is everyone comfortable with the job and his/her part in it?"

Date	Name (Print)	Signature
11/3/07	STEVE LEWIS	[Signature]
11/3/03	SCOTT DAVIS	[Signature]
11/3/03	Fidel River	[Signature]
11-3-03	Fowler DR	[Signature]
11-3-3	V.R.Benson-Merry V.R.Benson-Merry	[Signature]
11-3-03	E.H. Hawkins	[Signature]
11-3-03	G.L. GARMAN	[Signature]
11-3-03	R.J. Townley	[Signature]
11-3-03	M.H. GOWG	[Signature]
11-3-03	K.D. Jamison	[Signature]

Date	Name (Print)	Signature
11/13/03	P.T. Sauerberg	[Signature]

FH PRE-JOB BRIEFING CHECKLIST

Work Document No.: <u>EL-07-00566</u>	FWS/PIC: <u>Larry Nunn</u>	Date: <u>10/31/07</u>
Task Description: <u>Replace stack sampler pickup line - remove insulation</u>		

TOPICS FOR DISCUSSION

(NOTE: A graded approach may be used during the conduct of pre-job briefings. The level of detail discussed will be at the discretion of the person conducting the pre-job briefing and the attendees. Refer to HNF-GD-14047 for guidance on conduct of pre-job briefings.)

PRE-JOB BRIEFING AGENDA:

- ☒ Verify personnel involved are present: Craft/Radiological/Engineering/Quality Control/Operations/Laboratory/Environmental/Safety/Other:

First Aid Provider Available for Support: Al H Young

Conduct a Task Overview

- ☒ Briefly describe scope of work (use sketches, floor plan, etc.)

Discuss Personnel Assignments

- ☒ Job assignments, training and qualifications

Discuss Controlling Documents

- ☒ Work Instructions (procedures, work plans, work packages, Automated Job Hazards Analysis, etc.)
- ☒ Procedure Compliance expectations including Procedure Use Type (Continuous/Reference)
- ☒ Hold Points, Radiological, Quality Control, other
- ☐ Cover actions required to recover in the event of a missed or improperly documented Hold Point per HNF-PRO-5432
- ☒ Associated plans and permits (Energized Electrical Work Permit, Fall Protection Plan, Confined Space Permit, Excavation, Asbestos, Hot Work Permit)
- ☒ Material Safety Data Sheets (MSDS) for hazardous material
- ☒ Radiological Work Permit (RWP) requirements, limitations, ALARA Management Worksheet (AMW) controls, temporary shielding needs and workplace radiological conditions, postings and Low Dose Standby Areas in use CPS 300
- ☒ Applicable Technical Safety Requirements/Limited Condition of Operation (LCO) including time clocks, how the work impacts equipment operability, and what is required to restore operability
- ☒ Applicable Criticality Posting Specification (CPS) and postings. CPS Nos.: _____
- ☒ Environmental permits and conditions Cold & Wind

Conduct Detailed Task Discussion (and review the following items as appropriate)

- ☐ The flow path of work, including expected results, emphasizing areas addressed in the Automated Job Hazard Analysis
- ☐ Prerequisites including Lock and Tag requirements
- ☒ Necessary tools and materials (including personal protective equipment) to ensure available and inspected for use and staged
- ☐ Use of special tools, containments, engineered controls, high-efficiency particulate air (HEPA) vacuums
- ☐ Precautions, warnings, special monitoring or special sampling requirements (radiological - Industrial Hygiene) and abort criteria, contingency plans and emergency actions
- ☐ Other precautions/limitations identified by walk down, permits, etc.
- ☐ Plant activities that might affect persons during job (e.g., criticality horn testing, drills, fire alarm testing)
- ☐ Work area conditions (weather, lighting, temperature, accessibility, protection of work area from interference)
- ☐ Air space boundaries (Plutonium Finishing Plant (PFP) - reference ZSP-006)
- ☐ Needed emergency communications systems
- ☐ Time constraints, when breaks will occur, stopping points for turnover and job cleanup at end of shift
- ☐ Waste minimization and disposal and housekeeping expectations (final condition of the work area). If waste minimization efforts are employed, record actions taken within the work document taken for future reference.
- ☐ Post system/component testing requirements
- ☐ Post-job review requirements
- ☐ PFP specific: Possible error precursors and flawed defenses (see precursor card). Determine whether additional defenses (i.e., self or peer verification) are warranted
- ☐ Casualty response action (e.g., secure and notify management before proceeding)
- ☒ The Stop, Think, Act and Review (STAR) philosophy
- ☒ STOP WORK AUTHORITY and the need for everyone to work safely
- ☒ Lessons learned from similar tasks

Request Feedback

Ask one final question, "Is everyone comfortable with the job and his or her part in it?"

Hanford NEPA Screening Form

For NEPA requirements, see HNF-RD-8308.

Answer questions YES or NO, and list NUMBER if applicable.

Work Item Title: Replace stack probe and sample line

Work Package Number 2C . 03 . 00560 / g

Project Description: (please limit to 6 lines)

Replace existing stack sample probe and sample line to meet the requirements of WAC 247/247 and NESHAPS section , subpart H

A

INTEGRAL ELEMENTS

☐ Yes ☒ No

Will work threaten to violate environmental laws, regulations, permits, or safety requirements?

☐ Yes ☒ No

Will work involve construction/expansion of waste treatment, storage, disposal facilities?

☐ Yes ☒ No

Will hazardous substances be disturbed allowing uncontrolled/unpermitted releases?

go to B.

B

ECOLOGICAL RESOURCES

☐ Yes ☒ No

Will work affect Wetlands/Aquifers/ALE Reserve?

☐ Yes ☒ No

Will work occur within 1/4 mile of Columbia River (Hanford Reach National Monument)?

☐ Yes ☒ No

Will wildlife or natural habitat be disturbed?

If all answers are NO, go to C; If any answer is YES, get Ecological Review. NUMBER:

then go to C.

C

CULTURAL RESOURCES

☐ Yes ☒ No

Does the work require excavations or surface disturbing activities? Obtain permit if required

☐ Yes ☒ No

Does the work require building or equipment modifications to listed historic structures?

(If all answers are NO, and all conditions have been met and the SWCX applies, go to D; If any answer is YES, a Cultural Resources Review is required.

List review NUMBER: 01.3

Fm 10/15/03

NOTE: If adverse impacts are identified, go to L.

D

SITE-WIDE CATEGORICAL EXCLUSION (SWCX)

☒ Yes ☐ No

In evaluating potential environmental impacts, was Waste Minimization considered? See HNF-PRO-462.

☒ Yes ☐ No

Is the work covered by a SWCX?

If YES, list SWCX that applies: B 1.3

print form and sign. If NO, Go to E.

E

SITE-WIDE CX DOES NOT APPLY

☐ Yes ☒ No

Does other DOE approved NEPA documentation apply for this activity? If yes provide applicable document number:

DOE/EA-

DOE/EIS-

Other-

If CX or EA preparation may be needed, contact FH ES: 376-4373.

Signature

Reviewer:

Scott A. Quinn

Phone:

372-0473

(Initiator, Cog. Engineer, Scheduler, Planner)

Concurrent:

John M. Linn

Date:

10/15/03

(Manager, Env. Compliance Officer, FH ES)

SWCX is not valid until any applicable Cultural/Ecological Resource Reviews are received and attached to this form.

SWCX cannot be used if the action is part of an activity under review in an EA/EIS. MAINTAIN A COPY IN THE APPLICABLE PROJECT FILE OR WORK PACKAGE

A-6001-497 (11/00)

UNREVIEWED SAFETY QUESTION (USQ) SCREENING RECORD WASTE MANAGEMENT PROJECT

1. Identification Number: WESF-03-102

Page 1 of 2

2. Title: Replace Stack 296-B10 stack probe and sample line (EL-03-00560)

Facility: WESF

Description of the proposed activity/reportable occurrence, Safety Basis Analysis, or Plant Condition:

Background: The WESF stack is identified as a major stack that is monitored by Washington Department of Health. This work package is for replacing the stack 296-B10 probe and sample line to meet the inspection requirements identified in WAC 246/247 and NESHAP, subpart H requirements. This screening will cover the installation and testing of the probe. The ventilation system may be shut down intermittently at the discretion of the facility. Ventilation shutdown is covered by an approved operating procedure that has been previously screened.

Discussion: This USQ screening reviews the entire work activity for impacts to the safety basis.

Safety Basis Documentation:

HNF-8758, Rev.0, WESF Documented Safety Analysis
HNF-8759, Rev. 0, WESF Technical Safety Requirements
HNF-11724, FH Safety Management Programs (FHSMMP)
Letter 03-ABD-0037, SER for FH Safety Management Programs

Conclusion: This activity does not represent a USQ.

References: NA

INSTRUCTIONS: Respond to each question and provide justification for each negative response unless there is a "Yes/Maybe" response. If there is a "Yes/Maybe" response to a question, then a USQ Evaluation may be required. A restatement of the question does not constitute a satisfactory justification or basis. An adequate justification provides sufficient explanation such that an independent review could reach the same conclusion based on the information provided.

1. Does the proposed activity or occurrence represent a change to the facility or procedures as described in the Safety Basis?

☒ No ☐ Yes/Maybe

Basis: Section 2.6.2 describes the facility ventilation systems: "The WESF ventilation system is designed to produce airflow patterns that move air throughout the building from areas of lesser potential for contamination to areas of greater potential for contamination. Contaminated areas are maintained at a negative pressure with respect to the atmosphere. The HVAC system has four separate supply systems and three separate exhaust systems that service the major confinement areas in the 225-B Building."

Section 2.9.10 provides a description of the stack: "The effluent stack for building 225-B is a freestanding stack, 23 m (75 ft) high with a 1.1 m (42 in.) inside diameter, made from glass-fiber-reinforced polyester resin; the base of the stack is fastened to a steel base ring assembly. The steel base ring assembly consist of a 1.3 cm (1/2 in.) thick plate rolled into a cylinder having a 1.1 m (44 in.) inside diameter (ID) and .5 m (20 in.) high; the cylinder is welded to a 2 cm (3/4 in.) thick ring plate having an inside diameter of 1.1 m (44 in.) and an outside diameter of 1.4 m (53 in.), the cylinder and ring are reinforced with sixteen 1 cm (3/8 in.) gusset plates. The base ring assembly is anchored with sixteen 3.2 cm (1 1/4 in.) diameter by 0.4 m (16 in.) long anchor bolts embedded in a reinforced concrete foundation 2 m (6 ft) in diameter and 4.3 m (14 ft) deep. The stack has two main penetrations: a 0.8 m (30 in.) penetration for the K-1 and a 0.5 m (20 in.) penetration for the K-3 exhaust duct connections, as well as several other penetrations ranging between 2.5 cm (1 in.) and 0.4 m (15 in.) in diameter for stack sampling. All penetrations are equipped with stainless steel flanges molded into the stack. The stack is equipped with a spray ring, drain, and lightning arrestor. The stack sample system is described in Section 2.7.3.1.2."

UNREVIEWED SAFETY QUESTION (USQ) WASTE MANAGEMENT HANFORD

Identification Number:
WESF-03-102

USQ SCREENING

Page 2 of 2

Section 2.7.3.1.2 provides a brief description of the stack sample system: "A multi-nozzle sampler in the WESF stack performs constant flow sampling and monitoring with a CAM. A record sample is achieved with a fixed-head sampler coupled to a conventional gas flow meter that records the total gas flow sampled so that concentration values can be determined. There is continuous monitoring of the air stream with both local and remote alarms as required for a major stack."

The installation of the new probe and sample line will not change the facility as currently described in the safety basis.

2. Does the proposed activity or occurrence represent conditions (e.g., new or changed hazards) that have not been analyzed in the Safety Basis?

☒ No ☐ Yes/Maybe

Basis: The ventilation system, stack, and stack sample system are described in the safety basis. Hazards associated with the facility ventilation systems (e.g., loss of airflow, structural failure) and hazards associated with the stack/stack sample system (e.g., contaminated airflow through stack, structural failure of stack) are identified in the DSA Appendix A "WESF Hazards Evaluation" and evaluated in the Chapter 3 accident analyses as appropriate. While the stack and stack monitoring system are not credited to mitigate any accident consequences, the monitoring system is identified in Table 3-4 "Summary Table of Binned Hazards" as a defense in depth feature for the design basis earthquake and K-3 HEPA filter failure events.

Because the stack monitoring system will still function as described in the safety basis and the hazards associated with this system are recognized, this work will not create any new or changed hazards that have not been analyzed.

3. Does the proposed activity represent a test or experiment NOT described in the Safety Basis?

☒ No ☐ Yes/Maybe

Basis: This is not a test or experiment.

4. Does the occurrence, condition, or proposed change, represent a change to the Technical (or Operational) Safety Requirements or a reduction in a margin of safety described in the Safety Basis Documentation or Technical (or Operational) Safety Requirements?

☒ No ☐ Yes/Maybe

Basis: TSR LCO 3.3 requires an operable ventilation system in the pool cell area to protect the accumulation of a potentially flammable hydrogen concentration. The safety basis, Section 3.4.2.4.4 and LCO 3.3, recognizes the potential for an inoperable pool cell area ventilation system and allows for compensatory measures such as opening the pool cell north door.

TSR LCO 3.4 requires an operable ventilation system in the hot cells while capsules are present to prevent accumulation of a flammable hydrogen concentration or flammable gas concentration. No capsules are currently stored in the hot cells or expected to be stored in the hot cells. However, if capsules were stored in the hot cells and hot cell ventilation became inoperable, surveillance for water/flammable gas sources would be initiated per approved procedures and the capsules would be removed within 24 hours if necessary.

The procedure for responding to stack alarms addresses alarms caused by the sampler system and the procedure for operating the HVAC systems provides instruction for both the controlled and uncontrolled shutdown of the ventilation system, including the required TSR compensatory measures.

The performance of this work is not a deviation from any TSR requirements and does not represent a change to any accident assumptions; therefore, there is no reduction in the margin of safety and no changes to the TSRs.

USQE #1 Scott J. Davis

(Print Name)

Date:

10/14/03

Signature

USQE #2

Lori I. Covey

(Print Name)

Date:

10-14-03

Signature

RAM 03-001: Determining options for compliance with the sample system inspection requirements of the 40 CFR 61, Subpart H, Method 114, Section 4. Quality Assurance Methods, Table 2. "Maintenance, Calibration and Field Check Requirements"

Q: Since the 40 CFR 61, Subpart H is not specific regarding how to address certain inspection-related required actions listed in the Table 2 of Method 114 regarding major stack radioactive airborne effluent sample systems, what is the FH regulatory and/or regulatory-intent based interpretation regarding each of the related questions in the attached list?

A: The attached table provides the FH environmental interpretation of compliance options in response to the listed questions.

Analysis

The "National Emission Standards for Hazardous Air Pollutants; National Emissions Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities; National Emission Standards for Radionuclide Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H; Final Amendment" (NESHAPs Subpart H amendment) was issued September 9, 2002 (FR 57159), and became effective October 9, 2002. This action, in part, imposed additional inspection requirements on existing facilities subject to Subpart H of the 40 CFR 61 and still subject to ANSI N13.1-1969 "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities." The more stringent inspection requirements are contained in the 40 CFR 61, Appendix B, Method 114 – Test Methods for Measuring Radionuclide Emissions from Stationary Sources, in Section 4, Table 2. The more stringent requirements for inspection are briefly listed in the Table 2 with no additional explanatory text or referenced guidance provided by EPA. The EPA does mention in the federal register notice, under Section (2)D. Expected Cost Impacts Associated With Today's Action that the additional inspection requirements in Appendix B, Method 114 are "...taken directly from ANSI/HPS N13.1-1999." This infers guidance regarding the Method 114 Table 2 should be consistent with guidance for any of the equivalent inspections under the ANSI/HPS N13.1-1999.

The regulatory interpretation/direction contained in the attached table represents the regulatory requirements where such basis is identified, with the remainder of the direction representing best practice recommendations, based on technical references and interpretation of the intent of the NESHAPs Subpart H amendment.

Conclusion

see attached table

References

1. Federal Register, Vol. 67, No. 174 / Monday, September 9, 2002 / Rules and Regulations: [FRL -7271-3] "National Emission Standards for Hazardous Air Pollutants; National Emissions Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities; National Emission Standards for Radionuclide Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H; Final Amendment"

2. ANSI N13.1-1969, "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities"
3. ANSI/HPS N13.1-1999, "Sampling and Monitoring Releases of Airborne Radioactive Substances from the Stacks and Ducts of Nuclear Facilities"
4. WAC 246-247, Radiation Protection – Air Emissions
5. Letter B3500-RAB-02-110, Reissue 1, dated November 15, 2002.
6. Studies performed by Andrew McFarland (Texas A&M) at Los Alamos, NM.

If you have any questions, please contact J. A. Bates by e:mail or by telephone on 376-2088 or W. E. Toebe via e:mail or by telephone on 372-2359.

FH Environmental Interpretation Of Compliance Options

	Action	FH Regulatory Interpretation / Direction
1.	Is the Vent & Balance manual (V&B) annual stack flow measurement acceptable to satisfy NESHAPs requirements?	<p>Yes. The V&B methods must comply with 40CFR60 Appendix A Reference Method 2, or 2A as per 40 CFR 61.93(b)(1). Additionally, 40 CFR 61 mandates the frequency of flow rate measurements depends on the variability of the stack flow rate. For variable flow rates, (>20% over a year) continuous flow measurements are required.</p> <p>If continuous measurement of flow rate is not required, annual measurements of flow rate are adequate.</p> <p>[Basis: ASME N13.1-1999, Section 6.2.1.</p> <p>Also, see Item 1 of attached "Technical Basis"]</p> <p>FH Central Engineering has agreed to compare the V&B procedure with the Reference Methods 2 and 2A to confirm stack flow measurement locations are adequate. Central Engineering has agreed to then issue criteria for facilities regarding adequate stack flow measurements.</p>
2.	If V&B is used, per 1. above, does the insitu pitot tube in a stack still have to meet NESHAPs amendment requirements (e.g. Table 2) apply? If yes, which?	No, not if the V&B data is used for reporting purposes and the V&B methods are EPA compliant.
3.	Where V&B (manual methods with portable instrumentation) is used to measure stack flow, do any of the NESHAPs Amendment requirements (e.g., Table 2) apply to the V&B methods? If yes, which?	No. The NESHAP Amendment (40 CFR 61 Subpart H, Appendix B Method 114 Table 2) requirements are intended only for instrumentation installed in stacks used when continuous flow measurement is required.

4.	<p>For all sample probes (sharp edged and not):</p> <ul style="list-style-type: none"> • What is the "alignment" tolerance (degrees from perfectly plumb) • What definition of "presence of deposits" is to be used? How do we determine if deposits are present (degree or precision of visual recognition)? • What constitutes "degrading factors"? Can activities in/around the stack sample probe create a "potential degrading factor situation" that would prompt inspection of the sample probe? 	<ul style="list-style-type: none"> • 22.5 degrees for shrouded probes; 10 degrees for sharp edged nozzles. [Basis: See Item 4 of Attached Technical Basis] • "Presence of deposits" means any visible (without magnification), foreign material on either the internal or external regions of the nozzle. • The definition of presence of deposits is as specified in the text of the ANSI/HPS N13.1-1999: any visible deposits. The nozzle should be cleaned if there are visible deposits of material on either the internal or external regions of the nozzle. • The most significant and/or common degrading factors (alignment, damage, presence of foreign deposits) have been addressed. Other degrading factors are judgment decisions on a case by case basis. The inspection is required annually.
5.	What criteria are used to determine that the transport line needs to be cleaned?	Any visible (without magnification) deposits present.
6.	If transport line cleaning is required, what degree of cleaning is acceptable? (How clean is clean?)	<ul style="list-style-type: none"> • Degree of cleaning should be to the point where visible deposits (without magnification) are not present in the line, based on good engineering judgement. • For lines cleaned by liquid rinsing, a 90% yield of collected rinse material is a suggested criterion. [Basis: See Item 6 of the attached Technical Basis]
7.	What portion of the transport line needs to be inspected (representative portion or whole line)?	A representative section of the sample transport could be an acceptable as an indicator of overall transport line cleanliness. An example of a representative section would be the first significant horizontal section of the transport line and/or bend in the line from the nozzle.
8.	<p>For the sample transport system:</p> <ul style="list-style-type: none"> • What circumstances would allow inspection to satisfy transport line leak requirement? • If testing is required to verify non-leakage, what acceptance criteria are to used? (e.g., pressure change X over Y 	<ul style="list-style-type: none"> • Inspection will satisfy the line leak requirement for stacks with PTE < 5 mrem/yr (296-B-1). All other FH major stacks with PTE > 5 mrem/yr must be tested for leaks. [Basis: See Item 8 of the attached Technical Basis] • Leak test acceptance criterion is 5% vacuum leakage rate. [Basis: ANSI

	time)	N13.1-1999, Section 6.9]
9.	When doing Table 2 inspection and maintenance, how long can the sample system can be "down" before the facility mitigating actions are required?	40 CFR 61.14, Monitoring requirements, paragraph (b) states the owner or operator shall maintain and operate each monitoring system in a manner consistent with good air pollution control practice for minimizing emissions. The monitoring system should be repaired or adjusted as soon as practicable. Historically, a 72 hour threshold has been recommended, but is not specified in the regulations.
10.	Does the NESHAPs Amendment Project assume full inspection-related compliance for all stacks regardless of ongoing activities or remaining life of the facility? (e.g., WRAP or CSB, vs CVD, PUREX)	Yes. Full compliance is expected by 12/31/03.
11.	Does the interpretation / direction above take precedence over existing NOC permits for specific stacks?	All major stacks with sample probes and/or transport systems must comply with Table 2 requirements. When application of Table 2 requirements is not practical or a conflict exists with NOC permit conditions, the FH radioactive air emissions interpretive authority should be consulted.
12.	What specialty or training is required for the individual performing the inspection? Or can just anybody perform the inspection and declare it clean.	There is no specified training required.
13.	"What are the notification requirements with respect to the downtime?" (4 hrs, 8 hrs, 24hrs, when shutdown/restarted, upcoming planned maintenance pre-notification, etc.)	So long as the downtime is related to (amendment-related) maintenance, repair, or replacement-in-kind related to the emissions measurement system, no agency notification is required. If any disturbance of significant contamination separate from the emissions measurement equipment is anticipated, the planned actions should be reviewed internally for any possible requirements for prior approval by WDOH.
14.	"What facility activities must be shut down while the sampling system is down?"	Only new or elevated-emission activities need be curtailed during the sample system downtime.
15.	Is an NOC required to make changes to sample probe (e.g. to improve accessibility, removability, inspectability), or to replace with an upgraded probe design?	No. The changes to the sample system equipment are not considered modifications per regulatory definitions, so an NOC is not required. If other actions associated with sample system equipment changes cause

		<p>disruption of potentially airborne contamination, those actions should be reviewed in advance to determine if prior WDOH approval might be necessary.</p> <p>[Bases: WAC 246-247-060 requires an NOC for a "modification". WAC 246-247-030(16) definition: "Modification" means any physical change in, or change in the method of operation of, an emission unit that could increase the amount of radioactive materials emitted...excludes... replacement-in-kind..." WAC 246-247-030(22) "Replacement-in-kind" means the substitution of existing systems, equipment, components, or devices of an emission unit's control technology with systems, equipment, components, or devices with equivalent, or better, performance specifications that will perform the same function(s).]</p>
16.	Should a spare probe be procured to serve as a replacement?	<p>This is a judgment decision at the discretion of each facility. Some facilities that are confident they can accomplish the required inspection and cleaning activities within the suggested 72 hour downtime without a spare replacement probe may choose to do so.</p> <p>A spare probe is the recommended approach if the probe will be removed for inspection, unless cost is prohibitive. This will help minimize sampling system downtime by allowing probe inspection and cleaning after restoration of sampling. This will also ensure restoration if the condition of the existing probe is found to be degraded or if the probe is damaged during removal.</p>
17.	Can an existing old-technology multipoint probe be replaced with an improved, current technology <u>multipoint</u> probe (such as the current production Air Monitor or Kurz chandra-type nozzle multipoint probe)?	<p>Yes, this would be considered replacement in kind and excluded from the regulatory definition of a modification. Neither an NOC application nor regulatory approvals are needed to initiate and complete this activity. Incidental changes in fabrication would not alter this determination as long as the important sample probe parameters (e.g. nozzle spacing, nozzle diameter, probe length) do not change.</p>

Attachment

Technical Bases

Since neither the new Subpart H Amendment, or ANSI N13.1-1999 provide acceptance criteria for the QA/QC inspections, best engineering judgment is needed for several of the required actions. The numbering of items is relative to the action items listed in the regulatory interpretation table:

1. Variable stack flow rates (>20%)

This criterion is based on ANSI N13.1-1999, Section 6.2.1 which requires continuous measurements if the flow rate is anticipated to vary by more than 20% during a year.

4. Probe alignment (20 degrees, 10 degrees)

This criterion is based on studies performed by Andrew McFarland (Texas A&M) at Los Alamos, NM. These studies measured the transmission ratio at different yaw angles. The shrouded probe performed well up to 22.5° before transmission began to drop significantly (8% decrease in transmissivity). The isokinetic probe measured a 9% decrease at a yaw angle of 10°. In addition, a 10° yaw angle should be easily discernible with the naked eye or through a remote camera lens. Therefore, best engineering judgment supports the criterion of checking that alignment is within 10 degrees of vertical for the conventional sharp-edged probe ("isokinetic").

6. Transport line cleaning (>90%)

This criterion is based on the PFP Main Stack (291-Z-1) sampling studies performed in 2002. The Letter of Instruction requested a 90% recovery of radioactive material from the acid rinsing and analysis of the 22-year-old probe and sample line. After laboratory leaching of the 14 sections of sample line with 4M nitric acid, greater than 90% recovery was achieved in 10 of the sections after three rinses. All fourteen sections achieved >90% recovery after four rinses. See Letter B3500-RAB-02-110, Reissue 1, dated November 15, 2002.

If methods other than acid rinsing are used, different criteria may be more appropriate. Portable survey instruments, or qualitative judgment of visible solids may be best for mechanical cleaning (e.g., pipe cleaner.)

8. Leak testing for stacks > 5mrem/yr PTE

This criterion is based on ANSI N13.1-1999, Section 4.3, Table 2 - Graded approach to sampling and monitoring. Section 6.9 states that leak checks are required for sampling systems used on PIC 1 sources, and that leakage should be less than 5% of the nominal sample flow rate.

QA Green Tag
for probe fab.



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ORIGINAL BUM

1. Bill of Material Suppl.

Page 1 of 2

BILL OF MATERIAL		2. Title/End Use: STACK SAMPLER REPLACEMENT		3. Log No.:		4. Wk/FMP No.: EL-03-00560/M				
Date: 10/03/2003		6. Requestor: CHUCK CLEMMONS		7. Date Required: 10/24/2003 <input type="checkbox"/> Mandatory		8. Priority: 2				
Action: <input checked="" type="checkbox"/> Acquisition <input type="checkbox"/> Return to Vendor <input type="checkbox"/> Inventory Return <input type="checkbox"/> Excessing <input type="checkbox"/> Return to Spare Parts <input type="checkbox"/> Transfer to Convenient Storage <input type="checkbox"/> Declare Material Surplus										
0. Cost Cntr: B8214		CACN: 119427		COA: CA10		Auth. By:				
11. em No.	12. Quan. 13. Unit	14. Material Description (Material requirements, ASME, ANSI, MSDS req., etc.)	15. Estimated Cost	16. Proc. Doc. No. 17. Exp. Delivery Date	18. Safety Class	19. Approval Design- nator	20. Quality Level	21. Storage Level	22. Date Ordered 23. Date Received	24. Catalog No. 25. Storage Location
01	4 EA	451554, TUBING, STAINLESS STEEL, 3/4" X .065, 304/304L	\$300		GS	NA	0			
02	4 EA	UNION, 3/4", SWAGelok PN: SS-1210-6			GS	NA	0			
03	1 EA	CONNECTOR, 3/4" MALE X 3/4" TUBE, SWAGelok PN: SS-1210-1-12			GS	NA	0			
04	75 FT	HEAT TRACE, SELF REGULATING, 120 VAC, 10 WATTS/FT, RAYCHEM PN: 10BTV1			GS	NA	0			
05	6 EA	CLAMP ASSEMBLY, FOR 3/4" TUBING, UNISTRUT PN: 012T016			GS	NA	0			
06	6 EA	CAP, 3/4" SWAGelok PN: SS-1210-C			GS	NA	0			
07	80 FT	INSULATION, ARMAFLEX RUBBER INSULATION (TUBING) 1" ID X 1" WALL 80 LF Suggest Vendor E. J. Bartells Co Spokane, Wa			GS	NA	0			
08	100 EA	CAP, POLYETHYLENE, FITS 3/4" TUBING, MCMaster-CARR PN: 9567K11			GS	NA	0			

BILL OF MATERIAL (continued)

1. Bill of Material Suppl.

Page 2 of 2

4. Wk./EMP No.: FL-03-00560/M

Total Estimated Cost

26. Delivery Location:

Area: 200E

Building: 272BA

Room:

27. QAIP No. and QA Clauses:

NONE

28. Suggested Vendor(s), Address, Phone No., Contacts:

29. Special Instructions

☐ Hazardous

30. Emergency Justification:

31. Required Approvals (Ref. Instructions):

JL FOSTER

N/A

Cognizant Manager

Date

HID

Phone No.

Safety

Date

HID

Phone No.

N/A

Quality Assurance

Date

HID

Phone No.

C CLEMMONS

Other

10/3/03

Date

HID

372-0100

Phone No.

SJ DAVIS

Design Authority

Date

HID

Phone No.

32. Material Coordinator Assigned To (and phone):

BA ANDERSON

Material Coordinator

Phone No.

33. Material Released To and Received By (and date):

Name:

Date:

OMEGA CALIBRATION DATA

Date: 7/31/03

OMEGA ENGINEERING
ONE OMEGA DR.
STAMFORD, CT. 06907

Std. Temp.: 70 F

Std. Pressure: 29.92

Gas: N2

Ref. Gas: N2 K factor 1

Range: 10 SLPM

Inlet Pressure: AS REQUIRED

Ambient Pressure: 29.38

%RH: 45%

Ambient Temp.: 68 F

Cal. STD.: PRIMARY TUBES

Model #: B-924

Serial #: 491

Cal. Method #: 103

Rated Accuracy:

1% FS

MODEL #

Serial #

FMA-A2309

6739

Cal. performed by: *A. Lyons*

Title: CAL. TECH

NOTES:

NIST REF. #, 213426, 731/241140-88,

821/256463-96, 811/254335-94

All Calibrations are NIST traceable.

Uncertainty is ± 2 %

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03-2023.

Inst. Tech. Routines

प. १३

[illegible]

Summary by Craft/Resource Type

Craft/Resource Type	Total Hours	Craft/Resource Type	Total Hours

Davis, Scott J

From: Pennock, Janice L (Jan)
Sent: Wednesday, October 22, 2003 9:43 AM
To: Clemmons, Chuck; Davis, Scott J
Subject: FW: NESHAP Amendment - Covered or Non-Covered Work?

In case you were worried - Jan

-----Original Message-----

From: Gadd, Rodney R (Rod)
Sent: Wednesday, October 22, 2003 9:42 AM
To: Yoakum, Aaron K (Keith); Barnes, Brett M; Baumann, Marcella A; Bottenus, R J (Jay); Boynton, Harlan C; Bradt, Orval H; Brockman, Donna P; Bussell, James H; Carlson, Terry A; Dahlberg, Curt; DeLisle, Jerry; Diediker, Larry P; Dyekman, Dale L; Engelmman, Richard H; Giamberardini, Steven J; Gilkeson, Bruce A; Hadley, Karl A; Heinemeyer, M L (Skip); Hinchee, M A (MaryAnne); Hyatt, Jeannette E; Johnson, Charlette; Johnson, Daniel L (Dan); Kinsey, Liesa M; Koci, Gary L; LeBaron, Gregory J; Levinskas, David; McIntosh, Kevin M; O'Brien, Patrick M; Oldfield, Brian; Oldham, Richard W; Pennock, Janice L (Jan); Perkins, John O; Quayle, Thomas; Ranade, Digambar G (Raja); Riffe, Darrell J; Sanborn, Stephen L; Schliebe, Michael J; Simmons, Fen M; Wertz, Douglas E (Doug); Witwer, Keith S
Cc: Duffield, M F (Duffy)
Subject: NESHAP Amendment - Covered or Non-Covered Work?

HNF-PRO-070, *Plant Forces Work Review*, addresses compliance with the Davis-Bacon Act which requires "construction" type work to be performed by building trade crafts rather than maintenance (HAMTC) crafts. Per discussion with the Interpretive Authority for HNF-PRO-070, Maurice Duffield, the minor changes to the transport lines for several of these major stacks to permit disconnection for inspection of the nozzle (probe) and the transport line is considered an operation/inspection activity and **does not require a Plant Forces Work Review (PFWR) to be submitted**. Our current plans for using the HAMTC work forces is consistent with this interpretation.

Rod R. Gadd, PMP

Project/Construction Management Function Manager
Project Operations Center, Fluor Hanford
Phone: (509) 376-2763 FAX: (509) 376-6112
Cell Phone: (509) 430-2509 Pager: 85-6112

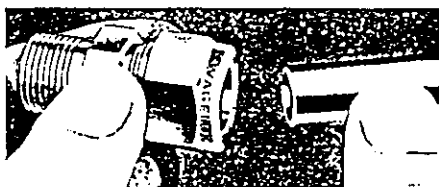
Installation Instructions

Swagelok tube fittings 1 in. or 25 mm and Under

Swagelok tube fittings come to you completely assembled, finger-tight and are ready for immediate use. Disassembly before use is unnecessary and can result in dirt or foreign material getting into fitting and causing leaks.

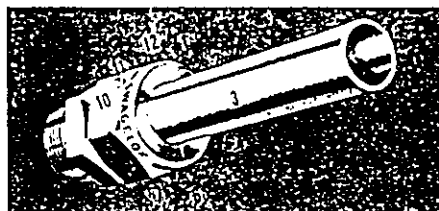
Swagelok tube fittings are installed in three (3) easy steps:

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Step 1

Simply insert the tubing into the Swagelok tube fitting. *Make sure that the tubing rests firmly on the shoulder of the fitting and that the nut is finger-tight.*



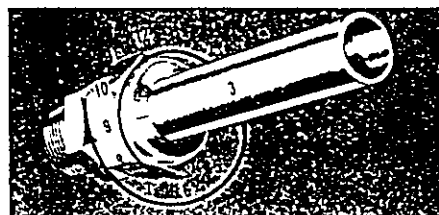
Step 2

Before tightening the Swagelok nut, scribe the nut at the 6 o'clock position.

High Pressure Applications or High-Safety-Factor Systems

Due to variations in tubing diameters, a common starting point is desirable. Using a wrench, tighten the nut to SNUG position. Snug is determined by tightening the nut until the tubing will not rotate freely (by hand) in the fitting. (If tube rotation is not possible, tighten the nut approximately 1/8 turn from the finger-tight position.) At this point, scribe the nut at the 6 o'clock position and tighten the nut 1 1/4 turns.[®] The fitting will now hold pressures well above the rated working pressure of the tubing.

Note: A Swagelok Hydraulic Swaging Unit must be used for assembly of Swagelok tube fittings onto 1 1/4, 1 1/2, 2 in., 28, 30, 32, and 38 mm outside diameter steel and stainless steel tubing (see page 55).



Step 3

Hold the fitting body steady with a backup wrench and tighten the nut 1 1/4 turns.[®] Watch the scribe mark, make one complete revolution and continue to the 9 o'clock position.

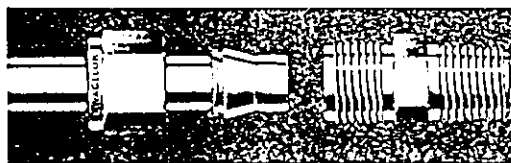
By scribing the nut at the 6 o'clock position as it appears to you, there will be no doubt as to the starting position. When the nut is tightened 1 1/4 turns to the 9 o'clock position, you can easily see that the fitting has been properly tightened.

Use of the gap inspection gage (1 1/4 turns from finger-tight) ensures sufficient pull-up.

For 1/16, 1/8, 3/16 in., 2, 3, and 4 mm size tube fittings, only 3/4 turn from finger-tight is necessary.

Retightening Instructions

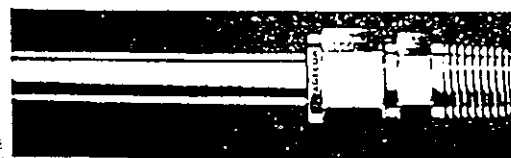
Connections can be disconnected and retightened many times. The same reliable leak-proof seal can be obtained every time the connection is remade.



1. Fitting shown in the disconnected position.



2. Insert tubing with preswaged ferrules into fitting body until front ferrule seats.



3. Tighten nut by hand. Rotate nut to the original position with a wrench. *An increase in resistance will be encountered at the original position.* Then tighten slightly with the wrench. Smaller tube sizes will take less tightening to reach the original position, while larger tube sizes will require more tightening. The wall thickness will also have an effect on tightening.

Gageability

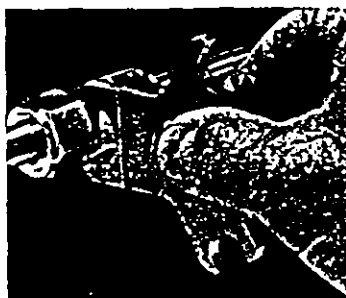
Swagelok tube fittings are made to exacting tolerances. Without such close tolerances, the interaction of the nut, two ferrules, and body would not be successful.

If good quality tubing is used with Swagelok tube fittings, successful connections will result when installation instructions are followed.

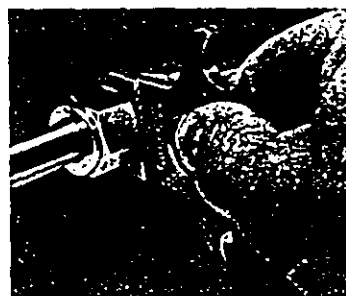
Swagelok gap inspection gages assure the installer or inspector that a fitting has been sufficiently pulled up. They are particularly applicable to systems where fittings are installed in difficult or inaccessible locations or systems where insufficient pull-up could cause potentially dangerous or expensive consequences.

Gageability ensures added safety and reliability. It is an exclusive Swagelok tube fitting feature that allows easy inspection for sufficient pull-up before a system is pressurized.

Most Swagelok tube fittings are gageable except for plastic fittings. Gap inspection gages are accurate only when all components are Swagelok components.



Gap inspection gage does not fit between nut and body hex. Fitting is sufficiently tightened.



Gap inspection gage fits between nut and body hex. Additional tightening is required.

Pressure Ratings and Tubing Information

Swagelok tube fittings are rated to the maximum working pressure of tubing as shown in the *Tubing Data Catalog* under Tab 5, Technical Information.

However, some fittings with AN, O-Seal or SAE/MS ends may have lower ratings. For more information, contact Your Authorized Swagelok Sales and Service Representative. Careful selection of high quality tubing is important when installing safe, leak-free systems.

Pipe End Pressure Ratings

Fittings that have both tube and pipe thread ends can have different pressure ratings. The Pipe End Pressure Ratings chart lists pressure ratings for male and female pipe thread ends. For female and male pipe threads to have the same pressure rating in the same nominal pipe size, the female

thread would require a heavier wall, resulting in a fitting too large and bulky to be practical.

A thread sealant should always be used when assembling tapered pipe threads. STRIP-TEEZE[®] Tape and SWAK[®] are excellent pipe thread sealants and are compatible with many

system fluids. See Tab 3, Lubricants/Sealants, located in the Master Product Binder. See the Tubing Data Sheet located in the Master Product Binder under the Technical Information tab for additional information on tubing pressure ratings.

Calculations based on ANSI code for pressure piping B31.3 Chemical Plant and Petroleum Refinery Piping

Size Designator	NPT/ISO Pipe Size (in.)	316 Stainless Steel and Carbon Steel				Brass			
		Male		Female		Male		Female	
		psig	bar	psig	bar	psig	bar	psig	bar
1	1/8	11 000	760	6700	460	5500	380	3300	230
2	1/8	10 000	690	6500	440	5000	340	3200	220
4	1/4	8000	550	6600	450	4000	270	3300	220
6	3/8	7800	540	5300	360	3900	270	2600	180
8	1/2	7700	530	4900	330	3800	260	2400	160
12	3/4	7300	500	4600	320	3600	250	2300	160
16	1	5300	370	4400	300	2600	180	2200	150
20	1 1/4	6000	410	5000	350	3000	200	2500	170
24	1 1/2	5000	340	4600	310	2500	170	2300	160
32	2	3900	270	3900	270	1900	130	1900	130

To determine working pressure ratings in accordance with ANSI B31.1 Power Piping for 316 stainless steel, multiply psig by 0.94. Brass ratings remain the same. To determine working kPa, multiply psig by 6.89.

Calculations based on:

Material	Allowable Stress Value	Design Factor	Ultimate Tensile Strength
316SS	20 000	1378	3.75:1
brass	10 000	689	4:1
steel	20 000	1378	3:1

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U.S. Department of Energy
Hanford Site

SEP 29 2003

03-ED-152

Mr. A. W. Conklin, Head
Air Emissions and Defense
Waste Section
State of Washington
Department of Health
P.O. Box 47827
Olympia, Washington 98504

Dear Mr. Conklin:

TITLE 40 CODE OF FEDERAL REGULATIONS (CFR) PART 61, SUBPART H
AMENDMENT IMPLEMENTATION ON THE HANFORD SITE

Reference: EPA letter from J. KenKnight to R. J. Schepens, ORP, and K. A. Klein, RL, "Title 40, Code of Federal Regulations (CFR) Part 61, Subpart H Amendment Implementation on the Hanford Site," dated September 9, 2003.

Attached please find a summary of technical discussions held between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA), Region 10, and the State of Washington Department of Health (WDOH) staff, regarding implementation of the recent 40 CFR Part 61, Subpart H amendment. These discussions between DOE and EPA were started February 19, 2003, and concluded August 6, 2003. Your staff participated in the February 19, 2003, discussions. All EPA comments from both meetings were incorporated into this summary. DOE requests your concurrence with the attached summary.

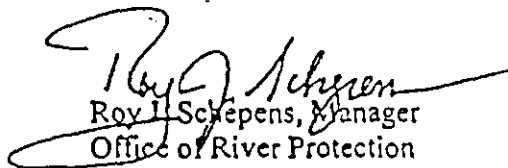
DOE would also like to suggest meeting with you and your staff sometime during the week of October 15, 2003, to discuss the development of a compliance plan for Hanford.

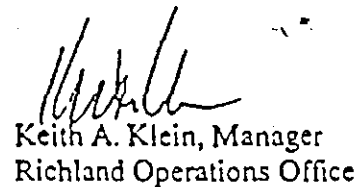
Mr. A. W. Conklin
03-ED-152

-2-

SEP 29 2003

If you have any questions, please contact Dennis W. Bowser, Environmental Division, Office of River Protection, (509) 373-2566, or Mary Jarvis, Regulatory Compliance and Analysis Division, Richland Operations Office, (509) 376-2256.


Roy J. Schepens, Manager
Office of River Protection


Keith A. Klein, Manager
Richland Operations Office

ED:DWB

Attachment

cc w/attach:

J. G. Woolard, BHI
D. Carrell, CH2M HILL
C. J. Kemp, CH2M HILL
N. Ceto, EPA
D. L. Dyekman, FHI
R. H. Engelmann, FHI
R. H. Gurske, FHI
J. L. Hanson, ENNOV
M. Barnett, PNNL
D. L. Edwards, PNNL
J. B. Hebdon, RL
M. F. Jarvis, RL
A. W. Conklin, WDOH
E. W. Fordham, WDOH, MSIN B1-42
J. W. Schmidt, WDOH, MSIN B1-42
Administrative Record
Environmental Portal, LMSI

Attachment
03-ED-152

Title 40 Code of Federal Regulations Part 61, Subpart H
Amendment Implementation on the Hanford Site

**TITLE 40 CODE OF FEDERAL REGULATIONS (CFR) PART 61, SUBPART H
AMENDMENT IMPLEMENTATION ON THE HANFORD SITE**

The following summarizes the technical discussion between the U.S. Department of Energy (DOE) and the Environmental Protection Agency, Region 10 (EPA) regarding implementation of new requirements promulgated by EPA in the Federal Register, Volume 67, Number 174 as published September 9, 2002, which amends the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 61, Subpart H, "National Emissions Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities."

A. FREQUENTLY USED DEFINITIONS:

ANSI 1999 Standard – ANSI/HPS N13.1 – 1999 "Sampling and Monitoring Releases of Airborne Radioactive Substances from the Stacks and Ducts of Nuclear Facilities," published by the Health Physics Society and approved by the American National Standards Institute, Inc., January 12, 1999.

DOE – the U.S. Department of Energy, including its Richland Operations Office (RL) and the Office of River Protection (ORP).

EPA – the U.S. Environmental Protection Agency and its authorized representatives.

Major Stack – a stationary point source which has a potential to discharge radionuclides into the air in quantities which could cause an effective dose equivalent in excess of 0.1 mrem/yr to members of the public. The potential to discharge radionuclides is based on the discharge of the effluent stream that would result if all pollution control equipment did not exist, but the facilities' operations were otherwise normal. Major stacks are sometimes referred to as major sources or designated stacks.

Minor Stack – a stationary point source which has a potential to discharge radionuclides into the air in quantities which could cause an effective dose equivalent less than 0.1 mrem/yr to members of the public. Minor stacks are sometimes called minor sources or non-designated stacks.

NESHAP Amendment – the EPA final amendment to 40 CFR Part 61 as promulgated in the Federal Register, Volume 67, Number 174, published Monday, September 9, 2002.

Table 2 Requirements – 40 CFR 61, "National Emissions Standards for Hazardous Air Pollutants," Subpart H, National Emissions Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities, Appendix B Test Methods, Method 114 Test Methods for Measuring Radionuclide Emissions from Stationary Sources, 4. Quality Assurance Methods, Table 2. – Maintenance, Calibration, and Field Check Requirements.

B. BACKGROUND INFORMATION:

The EPA amended 40 CFR 61 Subpart H in the Federal Register, Volume 67, Number 174, as published Monday, September 9, 2002. The amended rule became effective October 9, 2002. The Table 2 – Maintenance, Calibration, and Field Check Requirements apply to existing major stacks as well as newly constructed major sources.

A meeting was held on February 19, 2003, between the EPA, State of Washington Department of Health, Air Emissions, and Defense Waste Section (WDOH), DOE, and Hanford contractors to discuss important concepts and details that may be useful when interpreting and implementing the NESHAP's amendment requirements. Representatives from the EPA, WDOH, RL, ORP, Fluor Hanford, Inc., CH2M HILL Hanford Group, Inc., Pacific Northwest National Laboratory, and Bechtel Hanford, Inc. attended the meeting.

C. COMPLIANCE:

1. The regulatory agencies expect a compliance plan to be developed and submitted by December 31, 2003, for those stacks and facilities not in full compliance with the NESHAP amendment requirements by December 31, 2003.
2. DOE will pursue good faith efforts to comply with the NESHAP Table 2 maintenance requirements before December 31, 2003. EPA will exercise its enforcement discretion as appropriate during that time.
3. Notice of Construction permit applications and associated regulatory agency approvals are not needed to accomplish the tasks associated with Table 2 requirements because these actions will not result in increased emissions.
4. With respect to Federal enforcement of the NESHAP, Table 2 requirements do not apply to minor stacks.

D. CLARIFICATIONS:

1. Where applicable, the ANSI 1999 Table 2, "Graded approach to sampling and monitoring," could be used. The ANSI 1999 Table 2, "Potential fraction of allowable limit," refers to an emission unit's potential to discharge radionuclides and the allowable limit is the 40 CFR 61.92, 10 mrem per year effective dose equivalent to any member of the public. Note: The ANSI 1999 Table 2 is not the same as the NESHAP Amendment Table 2.
2. The ANSI 1999 Table 2, "Graded approach to sampling and monitoring," can be applied to the sample transport system leak testing – leak inspection requirement as discussed in ANSI 1999, Paragraph 6.9.
3. Although the NESHAP Amendment uses ANSI 1999 Table 5 as the basis for the new Table 2 requirements, the EPA did not adopt, reference, or otherwise make use of the

related ANSI 1999 text. The ANSI 1999 text provides useful information that can be used for guidance and clarification, where appropriate.

4. For stack flow instruments certified as accurate per the requirements of 40 CFR 52 Appendix E, Table 2 inspection of the pitot tube for deposits and leaks can be substituted with an evaluation that the instrument is still producing measurements within 10 percent of a manual flow measurement recorded per 40 CFR 60, Appendix A, Method 2 or 2C.
5. The Table 2 quarterly response check of stack flow rate systems can be done simply by changing the exhaust fan rate (e.g., by valve alignment) or producing a pressure pulse by some other means and checking that the corresponding instrument reading changed.
6. The Table 2 sharp edged nozzle inspection is not for shrouded probes.
7. The Table 2 transport line cleaning is not required if visible deposits are not seen inside the sample probe nozzle(s).
8. The Table 2 timing device calibration applies to electronic controllers or computer timing devices. All timing items must be checked and traceable to a national standard.
9. The Table 2 requirement to clean transport lines must be accomplished within the annual inspection cycle.

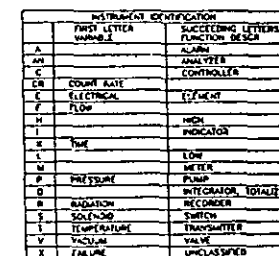
E. OTHER

1. The NESHAP Amendment copied Table 2 from ANSI – 1999 Table 5, which included a typographical error. The ANSI 1999 Table 5 and NESHAP Amendment Table 2 frequency to clean transport lines requirement states, "Visible deposits for HEPA-filtered applications. Surface density of 1 g/cm³ for other applications." The surface density value as published is incorrect and should be 1 g/m².
2. EPA will consider written proposals requesting approval for alternate methods of Table 2 compliance for individual facilities/stacks. ANSI 1999 Paragraph 6.4.6 states a cleaning schedule can be based on the actual performance of the sampling transport system. FHI plans to develop and submit a proposal for a stack sampling system aerosol test that will accomplish several Table 2 requirements in a single performance based test.

QUICK DISCONNECT

294-810

NEAR ISOTHERMIC MULTINOZZLE
SAMPLE PROBE

THERMOSTATICALLY CONTROLLED
HEAT TRACE

Field Verified 1/10/03

THIS DWG SUPERSEDES DWG H-2-92507,
SHEET 4, REV. 2 PER ECN 133585

296-B10 SAMPLE MONITOR CABINET ASSEMBLY

FEB 14 1963

[illegible]

FROM: D.A. HANCOCK (4-21-73)
 TO: WFO / BLO (4-21-73)
 RE: CS 501042 (4-21-73)
 RE: CS 501042 (4-21-73)
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 RE: CS 501042 (4-21-73)

U.S. DEPARTMENT OF ENERGY
 605 Four mile drive
 Washington, Maryland 20804

IED WESF
 STACK MONITOR
 296-B10

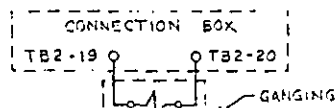
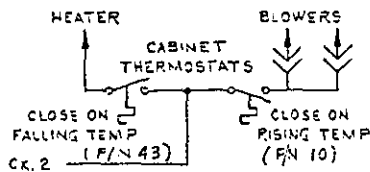
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240/120 VAC
PANEL BOARD SCHEDULE (ASSY 1 ONLY)

BKR AMP	SERVICE	MAIN 100 AMP	SERVICE	BKR AMP
15	BY VAC. PUMP	10	CABINET HEATER & BLOWERS	15
15	CABINET LIGHT, INSTRUMENT & CONN. BOX	30	MONITOR VAC. PUMP	15
15	HEAT TRACE	50	REC'D SAMPLE VAC. PUMP	15
	SPACE	7	CONVENIENCE OUTLET	15

240/120 VAC
PANEL BOARD SCHEDULE (ASSY 46 ONLY)

BKR AMP	SERVICE	MAIN 100 AMP	SERVICE	BKR AMP
15	BY #1 VAC PUMP	10	CAB HEAT & BLOWER	15
15	CAB LIGHT	30	BY #2 VAC PUMP	15
15	HEAT TRACE	50	SPARE	15
	SPACE	7	CONVENIENCE OUTLET	15



GENERAL NOTES

1. ELECTRICAL INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE CURRENT EDITION.
2. IDENTIFY ASSEMBLIES 1 AND 46 PER HS-B5-0015, TYPE 10 (TAGGING) WITH DRAWING NUMBER, PART NUMBER AND DRAWING REV. NO.
3. CIRCUIT NO. SHOWN ARE FOR REFERENCE ONLY AND NOT TO BE MARKED ON PART.